ORDER NO. HAD8606586A4

Service Manual

Stereo DC Control Amplifier

SU-A80

SU-A80

Color

(K)... Black Type

Color	Areas
(K)	[PA].... Far East PX.
(K)	[PE].... European Military.

Please use this manual together with the service manual for Model No. SU-A6MK2, Order No. HAD84062824C2.

SPECIFICATIONS

(IHF '78)

■ AUDIO SECTION

Frequency response

PHONO MM	20 Hz~20 kHz
	RIAA standard curve ±0.2 dB
	20 Hz~100 kHz
	RIAA standard curve ±0.5 dB
TUNER, CD, VIDEO/AUX 1, TV/AUX 2, TAPE 1/EXT, TAPE 2/VTR, TAPE 3/DA TAPE /DA PROCESSOR	20 Hz~20 kHz, +0 dB, −0.1 dB
	0.5 Hz~200 kHz, +0 dB, −3 dB

Total harmonic distortion (20 Hz~20 kHz)

PHONO MM	0.002%
	(0.5V output at vol. −30 dB)
	0.002%
	(3V output at vol. max.)
PHONO MC	0.015%
	(0.5V output at vol. −30 dB)
	0.003%
	(3V output at vol. max.)
TUNER, CD, VIDEO/AUX 1, TV/AUX 2, TAPE 1/EXT, TAPE 2/VTR, TAPE 3/DA TAPE /DA PROCESSOR	0.002%
	(0.5V output at vol. −30 dB)
	0.002%
	(3V output at vol. max.)

Input sensitivity

PHONO MM	0.63 mV (2.5 mV, IHF '66)
MC	25 μV (100 μV, IHF '66)
TUNER, CD, VIDEO/AUX 1, TV/AUX 2, TAPE 1/EXT, TAPE 2/VTR, TAPE 3/DA TAPE /DA PROCESSOR	36 mV (150 mV, IHF '66)

S/N (IHF, A)

PHONO MM	80 dB (90 dB, IHF '66)
MC	77 dB (75 dB, IHF '66)
TUNER, CD, VIDEO/AUX 1, TV/AUX 2, TAPE 1/EXT, TAPE 2/VTR, TAPE 3/DA TAPE /DA PROCESSOR	97 dB (106 dB, IHF '66)

Maximum input voltage

PHONO MM	150 mV (160 mV, 1 kHz)

Input impedance

PHONO MM	47 kilohms
MC	220 ohms
TUNER, CD, VIDEO/AUX 1, TV/AUX 2, TAPE 1/EXT, TAPE 2/VTR, TAPE 3/DA TAPE /DA PROCESSOR	47 kilohms

Output voltage

PRE OUT	rated 2V
	max. 8V
TAPE 1/EXT, TAPE 2/VTR, TAPE 3/DA TAPE /DA PROCESSOR (REC OUT)	150 mV

Output impedance

TAPE 1/EXT, TAPE 2/VTR, TAPE 3/DA TAPE /DA PROCESSOR (REC OUT)	600 ohms
PRE OUT	2 ohms

Turnover frequency

BASS	500 Hz
SUPER BASS (12 dB/oct.)	75 Hz, 150 Hz
TREBLE	2 kHz
SUPER TREBLE	8 kHz
SUBSONIC FILTER (−12 dB/oct)	20 Hz

Shelving tone

BASS (50 Hz)	−5 dB~+5 dB
SUPER BASS (30 Hz)	0 dB~+10 dB
TREBLE (20 kHz)	−5 dB~+5 dB
SUPER TREBLE (50 kHz)	−10 dB~+10 dB
Muting	−20 dB

■ VIDEO SECTION

(VIDEO/AUX 1, TV/AUX 2, TAPE 2/VTR, TAPE 3/DA TAPE /DA PROCESSOR)

Output voltage (at 1V input, 75 ohms unbalanced)	1±0.1Vp-p
Maximum input voltage	1.5Vp-p
Input/output impedance	75 ohms unbalanced

Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

Panasonic Tokyo Office
Matsushita Electric Trading Co., Ltd.
6th Floor, World Trade Center Bldg.,
No. 4-1, Hamamatsu-cho 2-Chome, Minato-ku,
Tokyo 105, Japan

■ GENERAL

Power consumption	17W
Power supply	AC 110V/120V/220V/240V, 50 Hz/60 Hz
Dimensions (W×H×D)	476 × 99.5 × 360 mm (18-23/32" × 3-7/8" × 14-3/16")
Weight	6.7 kg (14.74 lb.)

Note:
Total harmonic distortion is measured by the digital spectrum analyzer (H.P. 3045 system).

(Specifications are subject to change without notice for further improvement.)

CHANGES

■ REPLACEMENT PARTS LIST

Notes: Please use this part number for parts order.

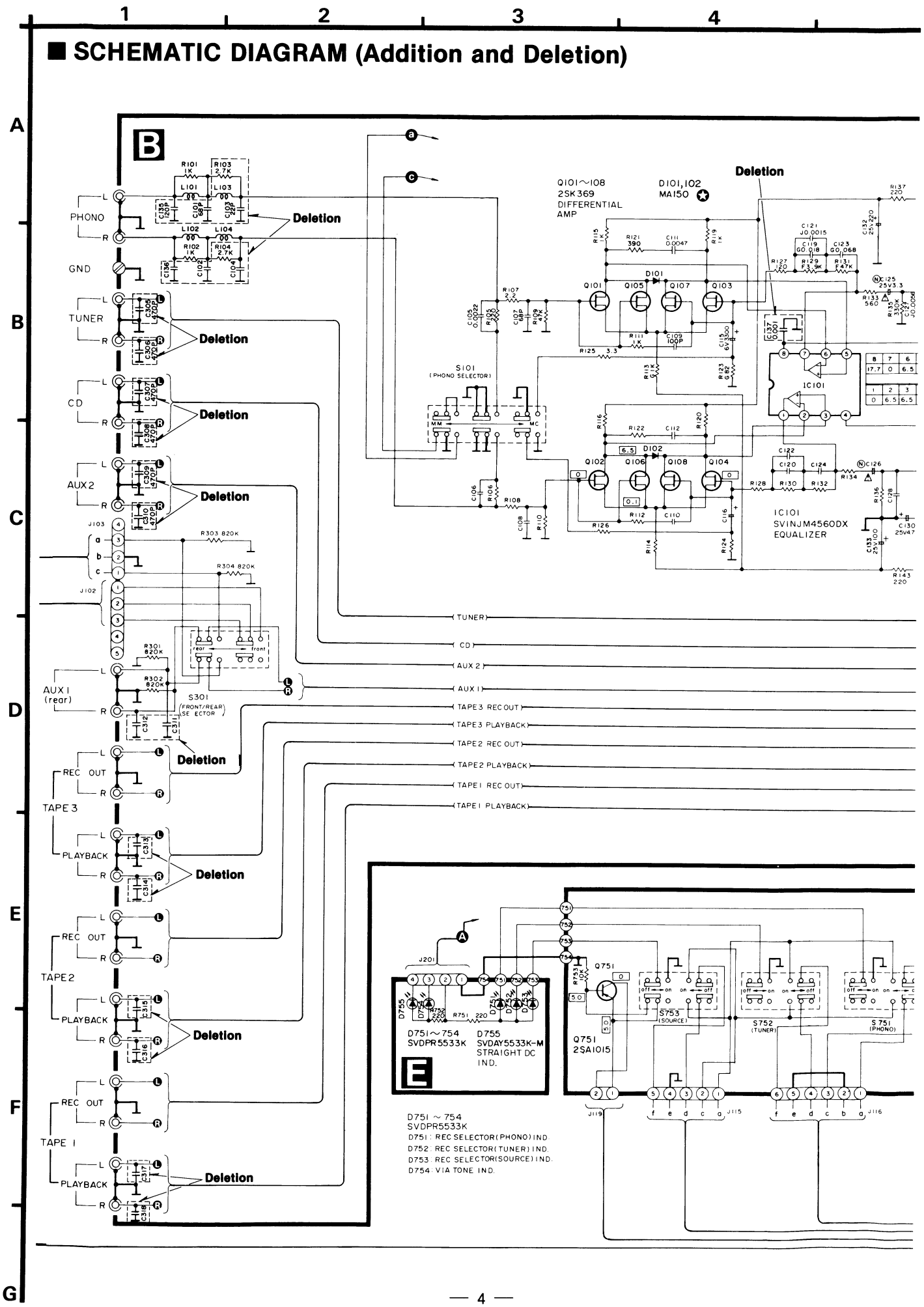
Ref. No.	Change of Parts No. SU-A6MK2 (EGA)	Change of Parts No. SU-A80 (PA, PE)	Part Name & Description
DIODES			
D269	MA1051M	———	Deletion
D221	———	MA1051M	5.1V, Zener (Addition)
D917, 918	———	MA4047M	4.7V, Zener (Addition)
COILS			
L103, 104	SLQW471−1P3	———	Deletion
L901	Addition	SLQZ650MH49	Choke
L902, 903	SLQX400−D	———	Deletion
RESISTORS			
R103, 104	ERD25FJ272	———	Deletion
R111, 112	———	ERD25FJ102	1K (Addition)
R271	———	ERD25FJ330	33 (Addition)
R276	———	ERD25FJ103	10K (Addition)
R317, 318	ERD25FJ102	———	Deletion
R419	ER025CKF7500	ERD25FJ750	75
R423	ER025CKF7500	ERD25FJ750	75
R908	———	ERDS2TJ562	5.6K (Addition)

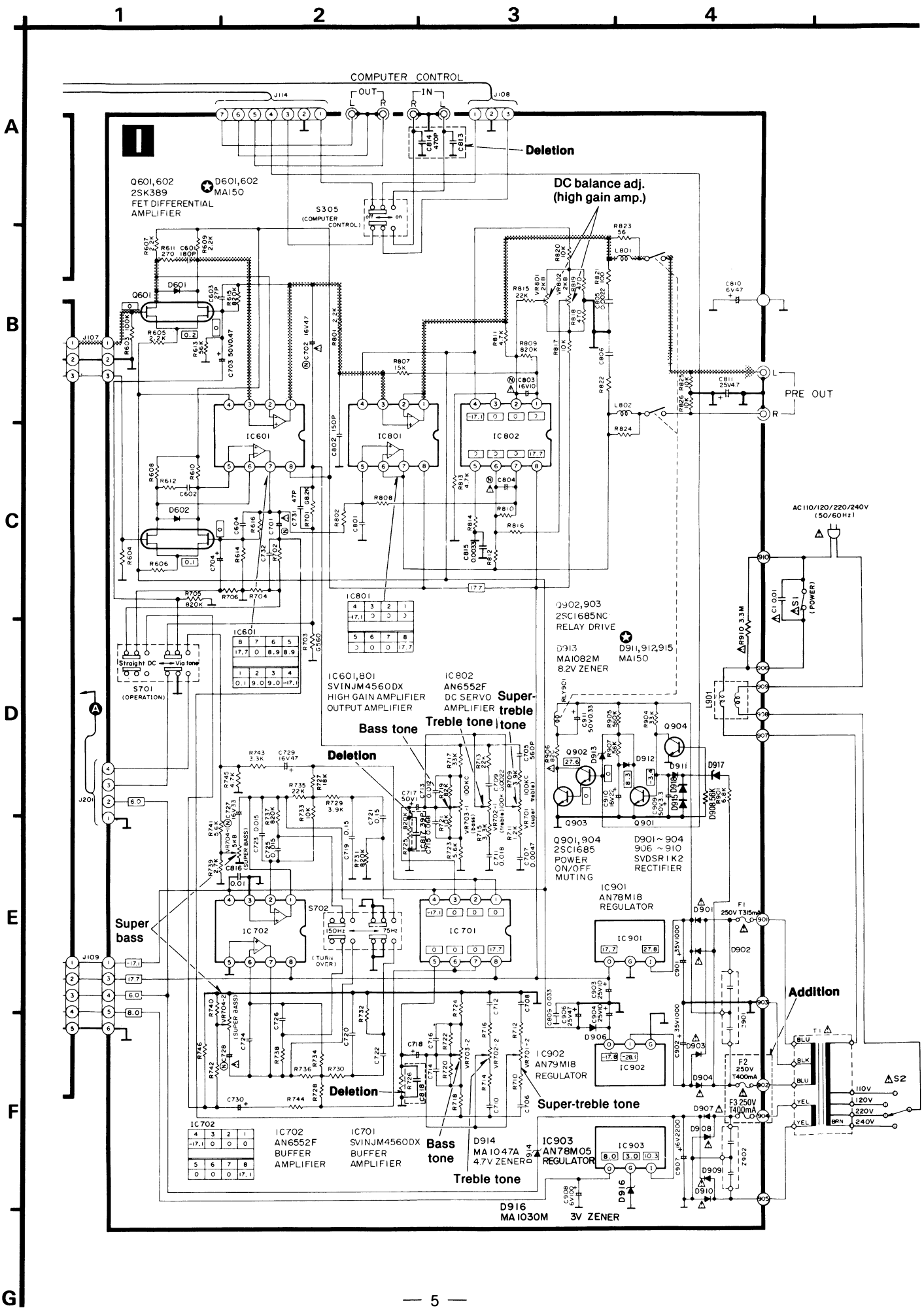
Ref. No.	Change of Parts No. SU-A6MK2 (EGA)	Change of Parts No. SU-A80 (PA, PE)	Part Name & Description
CAPACITORS			
C101, 102	ECCD1H680KC	———	Deletion
C103, 104	ECCD1H220KC	———	Deletion
C135, 136	ECCD1H121KC	———	Deletion
C305, 306	ECKD1H471KB	———	Deletion
C307, 308	ECKD1H471KB	———	Deletion
C309, 310	ECKD1H471KB	———	Deletion
C311, 312	ECKD1H471KB	———	Deletion
C313	ECKD1H471KB	———	Deletion
C316, 317	ECKD1H471KB	———	Deletion
C318	ECKD1H471KB	———	Deletion
C319, 320	ECKD1H471KB	———	Deletion
C813, 814	ECKD1H471KB	———	Deletion
C815	ECKD1H332MD	———	Deletion
C816	ECKD1H103ZF	———	Deletion
C817, 818	ECCD1H390KC	———	Deletion

Ref. No.	Change of Parts No. SU-A6MK2 (EGA)	Change of Parts No. SU-A80 (PA, PE)	Part Name & Description	
CABINET and CHASSIS PARTS				
1	SGU187	SGU187−2	Transparant Plate	(1)
2	SGWUA6MK2−KN	SGWUA80−KP	Front Panel Ass'y	(1)
13	SBC639	SBC639−2	Button	(1)
19	SBCUA6MK2−KN	SGXUA6MK2−KN	Input Selector Plate	(1)
21	SGXUA6MK2−KN	SBCUA80−KP	Input Selector Button	(1)
24	SBN1169	SBN1212	Volume Knob	(1)
26	SBC621	SBC621−1	Rec Selector Button	(1)
27	SBC627	SBC666−3	Power Button	(1)
28	SBC1167	SBC1167−2	Knob	(5)
29	SBC399T	SBC399−2T	Button	(11)
32	SKU8790−3	SKUUA80−KP	Bottom Board	(1)
33	SKL247−2	SKL295	Foot	(4)
35 ⚠	———	SJS601−3	Addition, AC Outlet	(1)
37 ⚠	SJA138−3	SJA121	AC Cord	(1)
38	SMC1135	SMC1135−1	Shield Cover	(1)
39	SGP6050−1A	SGPUA80−KP	Rear Panel	(1)
47	SKC350B2	SKCUA80−KP	Cabinet	(1)
59	———	SKZUA80−KP1	Addition, Side Panel (Right)	(1)
60	———	SKZUA80−KP2	Addition, Side Panel (Left)	(1)
61	———	SMX836	Addition, Insulation Cover	(1)
62	———	SMN1912	Addition, Bracket	(1)
SCREWS, WASHERS and NUT				
N1	XTB3+8BFZ	XYA3+EB8FZ	⊕3×8, Front Panel	(4)
N2	XWC3B	———	Delection, Washer	(0)
N4	XWA3B	XYNS3+C6−1S	⊕3×6	(2)
N7	XTB3+8B	XYA3+EB8	⊕3×8	(1)
N8	XWC3B	SHW32K150	Washer	(1)

Ref. No.	Change of Parts No. SU-A6MK2 (EGA)	Change of Parts No. SU-A80 (PA, PE)	Part Name & Description	
N9	XTB3+8B	XTB3+8G	⊕3×8	(5)
N10	XSN3+6S	XYNS3+C6−1S	⊕3×6	(5)
N11	XWA3B	———	Delection, Washer	(0)
N14	XSN3+6S	XYNS3+C6−1S	⊕3×6	(2)
N15	XWA3B	———	Delection, Washer	(0)
N18	XTB3+12BFZ	XTW3+8T	⊕3×8	(4)
N20	XTV3+8B	XWA3B	Washer	(2)
N22	XSS5+12FIS	XSS5+40FVS	⊕5×40, Side Panel	(8)
N23	XTB3+8BFZ	XTBS3+8BFZ1	⊕3×8	(17)
N26	XTB3+8BFN	XTB4+8F	⊕4×8	(2)
N28	———	XTW3+8H	Addition, ⊕3×8	(5)
N29	———	SNE98	Addition, Washer	(8)
N30	———	XWA7B	Addition, Washer	(8)
N31	———	XWE5X12FVC	Addition, Washer	(8)
N32	———	XTB3+14BFZ	Addition, ⊕3×14	(2)
PACKING PARTS				
P1	SPP689	SPP723	Polyethylene Bag	(1)
P3	SPS2955−6	SPS2955−9	Pad, Left Side	(1)
P4	SPS2957−5	SPS2957−9	Pad, Right Side	(1)
P5	SPG4791	SPG5682	Carton Box	(1)
P6	———	SPS4747	Addition, Pad	(2)
P7	———	SPH207	Addition, Sheet	(1)
ACCESSORIES				
A3	SQF12031	SQF12713	Instruction Book	(1)
A5	———	SJP9005	Addition, Adaptor (RCA → BNC)	(1)
A6	———	SJP9007	Addition, Adaptor (BNC → RCA)	(1)
A7	———	SJP9215	Addition, Plug Adaptor	(1)

■ SCHEMATIC DIAGRAM (Addition and Deletion)




COMPUTER CONTROL
OUT
IN
Deletion
Q601,602
2SK389
FET DIFFERENTIAL
AMPLIFIER
D601,602
MA150
S305
(COMPUTER CONTROL)
DC balance adj.
(high gain amp.)
PRE OUT
IC601
IC801
IC802
Q902,903
2SC1685NC
RELAY DRIVE
D913
MA1082M
8.2V ZENER
D911,912,915
MA150
AC 110/120/220/240V
(50/60Hz)
(POWER)
Straight DC
Via tone
S701
(OPERATION)
IC601,801
SVINJM4560DX
HIGH GAIN AMPLIFIER
OUTPUT AMPLIFIER
IC802
AN6552F
DC SERVO AMPLIFIER
Super-treble tone
Bass tone
Treble tone
Deletion
Q901,904
2SC1685
POWER ON/OFF MUTING
D901 ~ 904
906 ~ 910
SVDSR1K2
RECTIFIER
IC901
AN78M18
REGULATOR
Super bass
S702
(TURN OVER)
IC702
IC701
Addition
IC902
AN79M18
REGULATOR
Deletion
Super-treble tone
IC702
AN6552F
BUFFER AMPLIFIER
IC701
SVINJM4560DX
BUFFER AMPLIFIER
Bass tone
Treble tone
D914
MA1047A
4.7V ZENER
IC903
AN78M05
REGULATOR
D916
MA1030M
3V ZENER
110V
120V
220V
240V

■ REPLACEMENT PARTS LIST

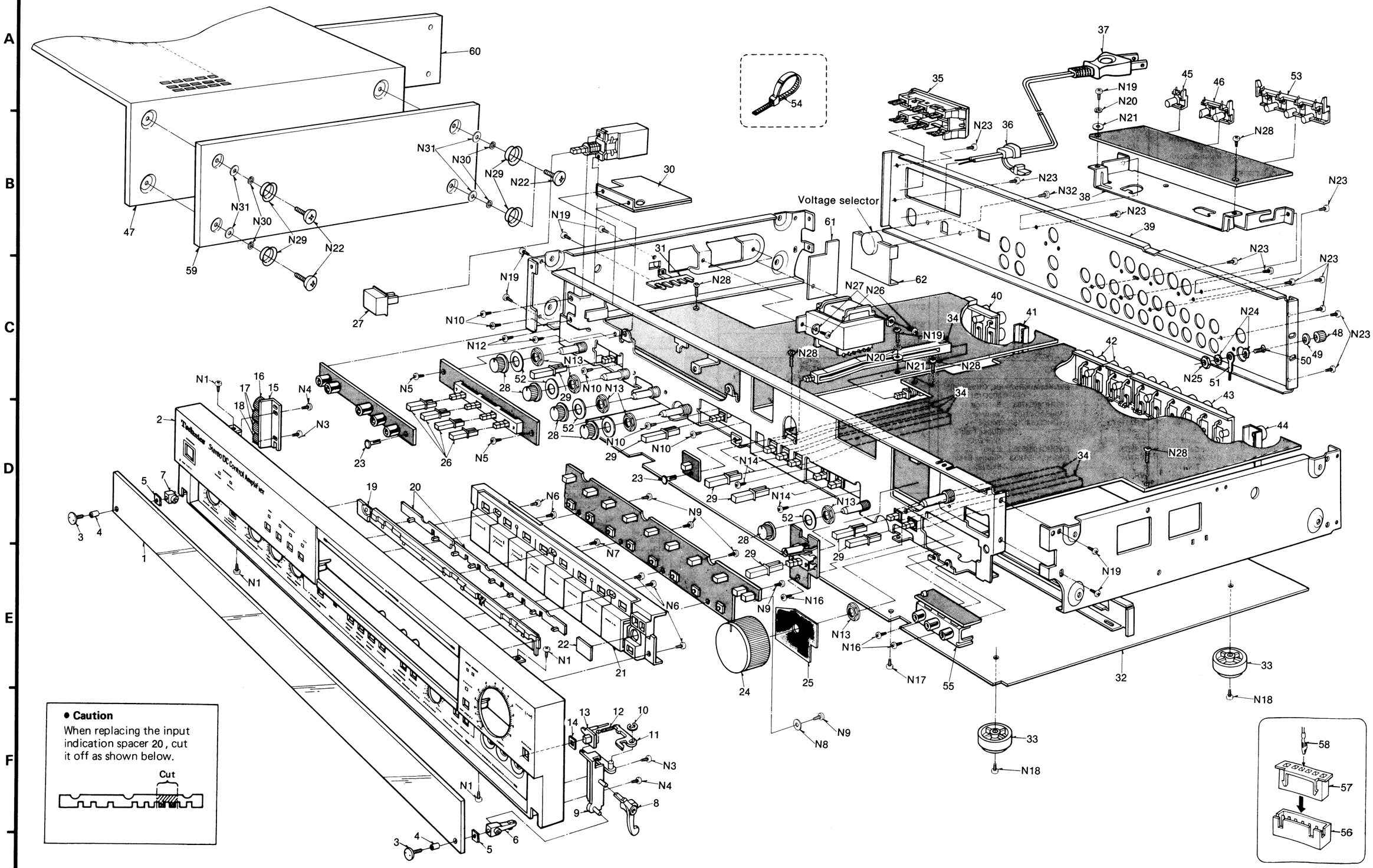
Notes:
- Part numbers are indicated on most mechanical parts. Please use this part number for parts order.
- Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
- The parenthesized numbers in the column of description stand for the quantity per set.

Ref. No.	Part No.	Description	
CABINET AND CHASSIS PARTS			
1	SGU187−2	Transparent Plate	(1)
2	SGWUA80−KP	Front Panel Ass'y	(1)
3	SNE2083	Rock Pin	(2)
4	SHG6131	Spacer	(2)
5	SHR9575	Spacer	(2)
6	SUB51	Hinge, Operation Lever (R)	(1)
7	SUB53	Hinge, Operation Lever (L)	(1)
8	SUB57	Operation Lever (R)	(1)
9	SUE23−1	Holder, Operation Lever	(1)
10	XUC3FT	E Ring	(1)
11	SUB55	Hinge, Operation Lever	(1)
12	SUS223	Spring	(1)
13	SBC639−2	Button	(1)
14	SHG6129	Spacer	(1)
15	SUE25−1	Holder, Gear	(1)
16	SUB65	Gear	(1)
17	SUB59	Gear	(2)
18	SUB63	Gear	(1)
19	SGXUA6MK2−KN	Input Selector, Plate	(1)
20	SGL165	Input Selector, Spacer	(1)
21	SBCUA80−KP	Input Selector, Button	(1)
22	SDU241	Spacer, Muting	(1)
23	RHR969ZA	Lock Pin	(2)
24	SBN1212	Knob, Volume	(1)
25	SHP9377	Spacer, Volume	(1)
26	SBC621−1	Button, Rec. Selector	(4)
27	SBC666−3	Button, Power	(1)
28	SBN1167−2	Knob	(5)
29	SBC399−2T	Button	(11)
30	SMCUA6MK2−KN	Bracket, Power Transformer	(1)
31	RJR2B	Holder	(1)
32	SKUUA80−KP	Bottom Board	(1)
33	SKL295	Foot	(4)
34	SUB99	Connection Rod	(6)
35 ⚠	SJS601−3	Socket, AC Outlet	(1)
36	SHR127	Bushing, AC Outlet	(1)
37 ⚠	SJA121	AC Cord	(1)

Ref. No.	Part No.	Description	
CABINET AND CHASSIS PARTS			
38	SMC1135−1	Shield Cover	(1)
39	SGPUA80−KP	Rear Panel	(1)
40	SJF3057−3N	Terminal, Computer Control	(1)
41	SJF3057−4A	Terminal, Output	(1)
42	SJF3057−3N	Terminal, Tape 1, 2	(2)
43	SJF3059−7N	Terminal, Tape 3, Tuner	(1)
44	SJF3225−3SA	Terminal, Phono	(1)
45	SJF3061−4N	Terminal, TV, VIDEO, Tape 3	(1)
46	SJF3061−3N	Terminal, Tape 2	(1)
47	SKCUA80−KP	Cabinet	(1)
48	SNE4017	Terminal, Grand	(1)
49	SNTA421	Terminal, Grand	(1)
50	SNEA204−2S	Terminal, Grand	(1)
51	RJT204A	Terminal, Grand	(1)
52	SHP9319	Spacer	(5)
53	SJF3061N	Terminal, OUTPUT	(1)
54	SHR301	Clamp	(8)
55	SJF3061−2N	Terminal, VIDEO Signal	(1)
56	SJT3511	Post (5 Pin)	(2)
56	SJT3611	Post (6 Pin)	(1)
57	SJS5331	Socket (3 Pin)	(1)
57	SJS5629	Socket (6 Pin)	(1)
58	SJT783	Terminal	(9)
59	SKZUA80−KP1	Side Board (Right)	(1)
60	SKZUA80−KP2	Side Board (Left)	(1)
61	SMX836	Insulation Cover	(1)
62	SMN1912	Bracket	(1)
SCREWS, WASHERS AND NUTS			
N1	XYA3+EB8FZ	⊕3×8, Front Panel	(4)
N3	XSN3+6S	⊕3×6	(2)
N4	XYNS3+C6−1S	⊕3×6	(2)
N5	XTB3+8B	⊕3×8	(2)
N6	XTB3+10B	⊕3×10	(5)
N7	XYA3+EB8	⊕3×8	(1)
N8	SHW32K150	Washer	(1)
N9	XTB3+8G	⊕3×8	(5)
N10	XYNS3+C6−1S	⊕3×6	(5)

Ref. No.	Part No.	Description	
SCREWS, WASHERS AND NUTS			
N12	XTB3+8B	⊕3×8, Shield	(2)
N13	SNE4021	Nut, Volume	(6)
N14	XYNS3+C6−1S	⊕3×6	(2)
N16	XTB3+8B	⊕3×8	(3)
N17	XTB3+8BFZ	⊕3×8	(8)
N18	XTW3+8T	⊕3×8	(4)
N19	XTB3+8B	⊕3×8	(8)
N20	XWA3B	Washer	(2)
N21	XWG3	Washer	(2)
N22	XSS5+40FVS	⊕5×40 Cabinet	(8)
N23	XTBS3+8BFZ1	⊕3×8	(19)
N24	XWC4B	Washer	(2)
N25	XNG4BS	Nut	(1)
N26	XTB4+8F	⊕4×8	(2)
N27	XWT4	Washer	(2)
N28	XTW3+8H	⊕3×8	(5)
N29	SNE98	Washer	(8)
N30	XWA7B	Washer	(8)
N31	XWE5X12FVC	Washer	(8)
N32	XTB3+14BFZ	⊕3×14	(2)
ACCESSORIES			
A1	SJP2239	Pin Cord	(1)
A2	TSX299	Pin Cord	(1)
A3	SQF12713	Instruction Book	(1)
A4	SJPA11−1	Short Pin	(10)
A5	SJP9005	Adaptor (RCA → BNC)	(4)
A6	SJP9007	Adaptor (BNC → RCA)	(1)
A7	SJP9215	Plag Adaptor	(1)
PACKING PARTS			
P1	SPP723	Polyethylene Bag	(1)
P2	SPH207	Sheet	(1)
P3	SPS2955−9	Pad, Left Side	(1)
P4	SPS2957−9	Pad, Right Side	(1)
P5	SPG5682	Carton Box	(1)
P6	SPS4747	Pad	(2)

■ EXPLODED VIEW



• Caution

When replacing the input indication spacer 20, cut it off as shown below.

■ REPLACEMENT PARTS LIST

Notes: • Part numbers are indicated on most mechanical parts. Please use this part number for parts order.
• Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

Ref. No.	Part No.	Description
INTEGRATED CIRCUITS		
IC101, 501, 601, 701, 801	SVINJM4560DX	Equalizer, Drive Buffer, Amp.
IC201, 202, 204, 205	SVIUPD4002BC	Input Selector Control
IC203	SVIUPD4072BC	Input Selector Control
IC301~305	MN6631A	Input Selector (Voice Signal)
IC401, 402	SVIUPD4066BC	Input Selector (Video Signal)
IC403	SVITD62501P	Inverter
IC702, 802	AN6552F	Buffer, DC Servo
IC901	AN78M18	Regulator
IC902	AN79M18	Regulator
IC903	AN78M05	Regulator
TRANSISTORS		
Q101~108	2SK369-GR	Differential Amp.
Q201~208, 214, 215, 217, 501, 502, 507~510, 901~904	2SC1685-QNC	Inverter, Input Selector, Relay Drive
Q209~213, 216, 408, 503, 504, 751	2SA1015Y	Inverter, Input Selector, Switching
Q401~406	2SA733-P1	Buffer Amp.
Q409~411	2SC3112	Transistor
Q505, 506, 601, 602	2SK389-GR	Differential Amp.
DIODES		
D101, 102, 202~209, 219, 221, 261~268	MA162A	Switching
D201	MA1100-M	10V, Zener
D211~218	SVDMC911	Input Selector
D220	SVDMZ303BM	3V, Zener
D221	MA1051	5.1V, Zener
D251~260, 351	SVDPR5533K	Input Selector IND.

Ref. No.	Part No.	Description
DIODES		
D401	MA1082M	8.2V, Zener
D402~404, 408	MA162A	Input Selector
D405, 406	MA1150M	15V, Zener
D407, 409~415, 501~504, 601, 602, 911, 912, 915	MA162A	Switching
D505, 506	MA27W-A	Switching
D551	SVDPR5735S	Muting IND.
D751~754	SVDPR5533K	Rec. Output
D755	SVDAY5533K-M	DC IND.
D901~904, 906~910	⚠ SVDSR1K2	Rectifier
D913	MA1082M	8.2V, Zener
D914	MA1047A	4.7V, Zener
D916	MA1030M	3V, Zener
D917, 918	MA4047	4.7V, Zener
COILS		
L101, 102	SLQW471-1P3	Choke
L801, 802	SLQX101-2D	Choke
L901	SLQZ650MH49	Choke
TRANSFORMER		
T1	⚠ SLT5L185	Power Source
VARIABLE RESISTORS		
VR501, 502	EVNK6AA00B52	DC Offset Adj., 500Ω(B)
VR503	EWGHCA054703	Balance
VR552	EWI6SA049101	Volume
VR701, 702	EWGHC0054C15	Treble, Super Treble, 100kΩ(C)
VR703	EWGHCY054530	Bass
VR704	EWKK5A531B53	Supper Bass, 5kΩ(B)
VR801, 802	EVNK6AA00B23	DC Offset Adj., 2kΩ(B)

Ref. No.	Part No.	Description
RELAY		
RLY901	SSY9	Output
COMPONENT COMBINATIONS		
Z201, 202	EXBP84104K	100kΩ×4
Z203, 204	EXFP6103ZW	0.01μF×6
Z401, 402	EXBP87104K	100kΩ×7
Z901, 902	SXRFS203ZSM	0.01μF×2
SWITCHES		
S1	⚠ ESB99399S	Power Switch
S2	⚠ ESE3787	Voltage Selector
S101, 301	SSH2071	Phono, Terminal Selector
S251~258	SSG13	Input Selector
S302~304	SSH469	Tape Monitor
S305	RSS42A	Computer Control
S501, 502	SSH2073	Rec. Mode, Subsonic
S551	SSH1139	Muting
S701, 702	SSH1137	Operation, Supper Bass
S751~753	SSH471	Rec. Output
FUSES		
F1, 2	XBA2C03TRO	250V, T315mA
F3	XBA2C04TRO	250V, T400mA

■ RESISTORS & CAPACITORS

Notes: • Please use this part number for parts orders.
• Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
• The unit of resistance is OHM (Ω).
K=1000Ω, M=1000KΩ
• The unit of capacitance is MICROFARAD (μF).
P=10^{-6}μF

● CAPACITORS

Ref. No.	Part No.	Value
C1, 2	⚠ ECKDKC103PF2	0.01
C105, 106	ECQM1H222JZ	0.0022
C107, 108	ECCD1H680K	68P
C109, 110	ECCD1H101K	100P
C111, 112	ECQM1H472JZ	0.0047
C115, 116	ECEA0JU332	3300
C119, 120	ECQP1183GZ	0.018
C121, 122	ECQM1H152JZ	0.0015
C123, 124	ECQP1683JZ	0.068
C125, 126	⚠ ECEA1EN3R3S	3.3
C127, 128	ECQM1H562JZ	0.0056
C129	ECEA1EU101	100
C130	ECEA1EU4R7	4.7
C132	ECEA1CU221	220
C133	ECEA1EU101	100
C201	ECEA1CU330	33
C202, 203	ECKD1H333ZF	0.033
C204, 205	ECKD1H333ZF	0.033
C206, 207	ECKD1H333ZF	0.033
C208, 209	ECKD1H333ZF	0.033
C210	ECEA1HU2R2	2.2

Ref. No.	Part No.	Value
C213	ECEA1CU222	2200
C214	ECKD1H333ZF	0.033
C215	ECEA1CU221	220
C217	ECKD1H333ZF	0.033
C218	ECEA1AU101	100
C302	ECEA1EU470	47
C401, 402	ECEA1AU471	470
C403, 404	ECEA1AU471	470
C405	ECEA1AU471	470
C406, 407	ECEA1CU470	47
C408, 409	ECEA1AU102	1000
C410	ECEA1AU102	1000
C412	ECKD1H333ZF	0.033
C413	ECEA0JU470	47
C414	ECEA1AU101	100
C415	ECEA1CU101	100
C416, 417	ECCD1H330KC	33P
C418	ECCD1H330KC	33P
C419, 420	ECKD1H102KB	0.001
C501, 502	ECQM1H683JZ	0.068
C503, 504	ECQM1H333JZ	0.033

Ref. No.	Part No.	Value
C505, 506	ECKD1H681KB	608P
C507, 508	ECKD1H681KB	680P
C509, 510	ECKD1H102KB	0.001
C511, 512	ECKD1H333ZF	0.033
C513, 514	ECEA1HU010	1
C515, 516	ECKD1H221KB	220P
C601, 602	ECCD1H181K	180P
C603, 604	ECCD1H270K	27P
C701, 702	⚠ ECEA1CN470S	47
C703, 704	ECEA1HUR47	0.47
C705, 706	ECKD1H561KB	560P
C707, 708	ECQM1H472JZ	0.0047
C709, 710	ECQM1H222JZ	0.0022
C711, 712	ECQM1H183JZ	0.018
C713, 714	ECQM1H123JZ	0.012
C715, 716	ECQM1H683JZ	0.068
C717, 718	ECEA1HU010	1
C719, 720	ECQM1H154JZ	0.15
C721, 722	ECQM1H154JZ	0.15
C723, 724	ECQM1H153JZ	0.015
C725, 726	ECQM1H153JZ	0.015

Ref. No.	Part No.	Value
C727, 728	⚠ ECEA1CN330S	33
C729, 730	ECEA1CU470	47
C731, 732	ECCD1H470K	47P
C801, 802	ECCD1H151K	150P
C803, 804	⚠ ECEA1CN100S	10
C805, 806	ECQM1H222JZ	0.0022
C809	ECKD1H333ZF	0.033
C810	ECEA0JU470	47
C811	ECEA1EU4R7	4.7
C901, 902	ECEA1VU102	1000
C903, 904	ECEA1EU100	10
C906	ECEA1EU470	47
C907	ECEA1CU222	2200
C908	ECEA1AU101	100
C909	ECEA1HU3R3	3.3
C910	ECEA1CU220	22
C911	ECEA1HUR33	0.33

● RESISTORS

Ref. No.	Part No.	Value
R101, 102	ERD25FJ102	1K
R105, 106	ERD25FJ221	220
R107, 108	ERD25FJ2R2	2.2
R109, 110	ERD25TJ473	47K
R111, 112	ERD25FJ102	1K
R113, 114	ERO25CKG1001	1K
R115, 116	ERO25CKG1001	1K
R119, 120	ERO25CKG1001	1K
R121, 122	ERD25FJ391	390
R123, 124	ERO25CKF82R0	82
R125, 126	ERD25FJ3R3	3.3
R127, 128	ERD25FJ121	120
R129, 130	ERO25CKF3901	3.9K
R131, 132	ERO25CKF4702	47K
R133, 134	ERD25FJ561	560
R135, 136	ERD25TJ334	330K
R137	ERD25FJ221	220
R143	ERD25FJ221	220
R201, 202	ERD25FJ103	10K
R203, 204	ERD25FJ103	10K
R205, 206	ERD25FJ103	10K
R207, 208	ERD25FJ103	10K
R209	ERD25TJ824	820K
R210, 211	ERD25FJ103	10K
R212, 213	ERD25FJ103	10K
R214, 215	ERD25FJ103	10K
R216, 217	ERD25FJ103	10K
R218	ERD25FJ103	10K
R219, 220	ERD25TJ334	330K
R221, 222	ERD25TJ334	330K
R223, 224	ERD25TJ334	330K
R225, 226	ERD25TJ334	330K
R227, 228	ERD25TJ334	330K
R229	ERD25TJ334	330K
R230	ERD25FJ103	10K
R231	ERD25TJ104	100K
R232, 233	ERD25TJ683	68K
R234, 235	ERD25TJ683	68K
R236, 237	ERD25TJ683	68K
R238, 239	ERD25TJ683	68K
R240, 241	ERD25FJ103	10K
R242, 243	ERD25FJ103	10K
R244, 245	ERD25FJ103	10K
R246, 247	ERD25FJ103	10K

Ref. No.	Part No.	Value
R248	ERD25FJ562	5.6K
R249	ERD25FJ103	10K
R250	ERD25TJ473	47K
R251, 252	ERD25FJ221	220
R253, 254	ERD25FJ221	220
R255, 256	ERD25FJ221	220
R257, 258	ERD25FJ221	220
R259	ERD25FJ221	220
R270	ERD25TJ103	10K
R271	ERD25FJ330	33
R272, 273	ERD25TJ104	100K
R274	ERD25FJ102	1K
R275	ERD25TJ104	100K
R276	ERD25FJ103	10K
R277, 278	ERD25FJ122	1.2K
R279	ERD25FJ561	560
R281	ERD2FCG560	56
R282	ERD2FCG121	120
R301, 302	ERD25TJ824	820K
R303, 304	ERD25TJ824	820K
R305, 306	ERD25TJ824	820K
R307, 308	ERD25TJ824	820K
R309, 310	ERD25TJ824	820K
R311, 312	ERD25TJ824	820K
R313, 314	ERD25TJ824	820K
R351	ERD25FJ221	220
R401, 402	ERD25FJ820	82
R403, 404	ERD25FJ820	82
R405	ERD25FJ820	82
R406, 407	ERD25FJ102	1K
R408, 409	ERD25FJ102	1K
R410	ERD25FJ102	1K
R411	ERD25FJ821	820
R412	ERD25FJ102	1K
R413	ERD25FJ391	390
R414	ERD25FJ221	220
R415	ER025CKF7500	750
R416	ERD25TJ104	100K
R417	ERD25FJ391	390
R418	ERD25FJ221	220
R419	ER025CKF7500	750
R420	ERD25TJ104	100K
R421	ERD25FJ391	390
R422	ERD25FJ221	220

Ref. No.	Part No.	Value
R423	ER025CKF7500	750
R424	ERD25TJ104	100K
R428, 429	ERD25TJ823	82K
R430	ERD25FJ102	1K
R439	ERD25FJ103	10K
R440, 441	ERD25TJ104	100K
R443	ERD25FJ470	47
R444	ERD25FJ181	180
R445	ERD25FJ470	47
R446	ERD25FJ181	180
R447	ERD25FJ470	47
R448	ERD25FJ181	180
R449	ERD25TJ104	100K
R501, 502	ERD25TJ683	68K
R503, 504	ERD25TJ333	33K
R505	ERD25TJ824	820K
R507, 508	ERD25TJ124	120K
R509, 510	ERD25FJ100	10
R511, 512	ERD25TJ224	220K
R513, 514	ERD25FJ103	10K
R515, 516	ERD25TJ154	150K
R519, 520	ERD25FJ102	1K
R521, 522	ERD25TJ153	15K
R523, 524	ERD25FJ470	47
R525, 526	ERD25FJ470	47
R527, 528	ERD25TJ473	47K
R529, 530	ERD25FJ331	330
R531, 532	ERD25FJ332	3.3K
R533, 534	ERD25FJ332	3.3K
R535, 536	ERD25FJ101	100
R537, 538	ERD25FJ100	10
R539	ERD25FJ221	220
R541, 542	ERD25FJ222	2.2K
R551, 552	ERD25FJ392	3.9K
R553	ERD25FJ561	560
R555, 556	ERD25FJ472	4.7K
R603, 604	ERD25TJ104	100K
R605, 606	ERD25FJ222	2.2K
R607, 608	ERD25FJ222	2.2K
R609, 610	ERD25FJ222	2.2K
R611, 612	ERD25FJ271	270
R613, 614	ERD25TJ563	56K
R615, 616	ERD25TJ824	820K
R701, 702	ER025CKF8201	8.2K

Ref. No.	Part No.	Value
R703, 704	ER025CKF5600	560
R705, 706	ERD25TJ824	820K
R709, 710	ERD25FJ392	3.9K
R711, 712	ERD25FJ122	1.2K
R713, 714	ERD25TJ223	22K
R715, 716	ERD25FJ332	3.3K
R717, 718	ERD25TJ333	33K
R719, 720	ERD25TJ823	82K
R721, 722	ERD25FJ103	10K
R723, 724	ERD25FJ562	5.6K
R725, 726	ERD25TJ824	820K
R727, 728	ERD25TJ183	18K
R729, 730	ERD25FJ392	3.9K
R731, 732	ERD25TJ824	820K
R733, 734	ERD25FJ103	10K
R735, 736	ERD25TJ223	22K
R737, 738	ERD25TJ824	820K
R739, 740	ERD25FJ272	2.7K
R741, 742	ERD25FJ562	5.6K
R743, 744	ERD25FJ332	3.3K
R745, 746	ERD25FJ472	4.7K
R751, 752	ERD25FJ221	220
R753	ERD25FJ103	10K
R801, 802	ERD25FJ222	2.2K
R807, 808	ERD25TJ153	15K
R809, 810	ERD25TJ824	820K
R811, 812	ERD25FJ472	4.7K
R813, 814	ERD25FJ472	4.7K
R815, 816	ERD25TJ223	22K
R817	ERD25FJ103	10K
R818, 819	ERD25TJ471	470
R820	ERD25FJ103	10K
R821, 822	ERD25FJ101	100
R823, 824	ERD25FJ560	56
R825, 826	ERD25FJ103	10K
R901	ERD25FJ682	6.8K
R904	ERD25FJ333	33K
R905	ERD25TJ564	560K
R906	⚠ ERD25FJ821	820
R907	ERD25TJ563	56K
R908	ERD25TJ562	5.6K

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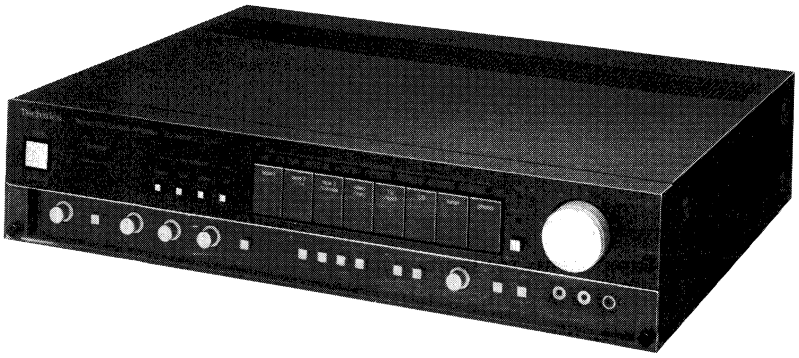
Service Manual

Stereo DC Control Amplifier

Amplifier

SU-A6MK2



Color

(K) . . . . Black Type

Color	Area
(K)	[EGA] . . . F.R. Germany

TECHNISCHE DATEN

(DIN 45 500)

■ TONTEIL

Gesamtklirrfaktor (20 Hz~20 kHz)
- **PHONO MM** 0,002%
  (0,5 V Ausgangsspannung bei −30 dB Leistung)
  0,002%
  (3 V Ausgangsspannung bei Höchstleistung)
- **PHONO MC** 0,015%
  (0,5 V Ausgangsspannung bei −30 dB Leistung)
  0,003%
  (3 V Ausgangsspannung bei Höchstleistung)
- **TUNER, CD, VIDEO/AUX 1, TV/AUX 2, TAPE 1/EXT, TAPE 2/VTR, TAPE 3/DA TAPE/DA PROCESSOR** 0,002%
  (0,5 V Ausgangsspannung bei −30 dB Leistung)
  0,002%
  (3 V Ausgangsspannung bei Höchstleistung)

Eingangsempfindlichkeit und -impedanz
- **PHONO MM** 2,5 mV/47 kΩ
- **MC** 100 μV/220Ω
- **TUNER, CD, VIDEO/AUX 1, TV/AUX 2, TAPE 1/EXT, TAPE 2/VTR, TAPE 3/DA TAPE/DA PROCESSOR** 150 mV/47 kΩ

Maximale TA-Eingangsspannung (1 kHz, eff.)
- **MM** 160 mV

Geräuschspannungsabstand
- **PHONO MM** 80 dB (90 dB nach IHF, '66)
- **MC** 73 dB (75 dB nach IHF, '66)
- **TUNER, CD, VIDEO/AUX 1, TV/AUX 2, TAPE 1/EXT, TAPE 2/VTR, TAPE 3/DA TAPE/DA PROCESSOR** 100 dB (nach IHF, '66: 106 dB)

Frequenzgang
- **PHONO MM** RIAA-Standardkurve, 20 Hz~20 kHz, ±0,2 dB
  RIAA-Standardkurve 20 Hz~100 kHz, ±0,5 dB
- **TUNER, CD, VIDEO/AUX 1, TV/AUX 2, TAPE 1/EXT, TAPE 2/VTR, TAPE 3/DA TAPE/DA PROCESSOR**
  20 Hz~20 kHz (+0, −0,1 dB)
  0,5 Hz~200 kHz (+0, −3 dB)

Shelving-Regler
- **SUPER BASS (30 Hz)** 0 dB~+10 dB
- **BASS (50 Hz)** −5 dB~+5 dB
- **TREBLE (20 kHz)** −5 dB~+5 dB
- **SUPER TREBLE (50 kHz)** −10 dB~+10 dB

Übergangsfrequenz
- **SUPER BASS (+12 dB/oct)** 75 Hz, 150 Hz
- **BASS** 500 Hz
- **TREBLE** 2 kHz
- **SUPER TREBLE** 8 kHz
- **SUBSONIC FILTER (−12 dB/oct)** 20 Hz

Tondämpfung −20 dB

Ausgangsspannung und -impedanz
- **PRE OUT** Nennspg. 2 V/2Ω, max. 8 V/2Ω
- **REC OUT**
  - **TAPE 1/EXT, TAPE 2/VTR, TAPE 3/DA TAPE/DA PROCESSOR** 150 mV/600Ω

■ BILDTEIL
(VIDEO/AUX 1, TV/AUX 2, TAPE 2/VTR, TAPE 3/DA TAPE/DA PROCESSOR)

Ausgangssignalpegel (bei 1 Vss, 75Ω, unsymetrisch) 1±0,1 Vp-p
Maximale Eingangsspannung 1,5 Vp-p
Eingangs/Ausgangsimpedanz 75Ω Unsymetrisch

■ ALLGEMEINE DATEN

Leistungsaufnahme 17 W
Netzspannung Wechselstrom 50 Hz/60 Hz, 110 V/120 V/220 V/240 V
Abmessungen (B×H×T) 430 × 98 × 360 mm
Gewicht 5,9 kg

Bemerkung:
Der Gesamtklirrfaktor wurde mit einem digitalen Rauschspektrometer (Anlage H.P. 3045) gemessen.

(Spezifikationen Können infolge von Verbesserungen ohne Ankündigung geändert werden.)

Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

SU-A6MK2

■ CONTENTS

	Page
SAFETY PRECAUTION	2
LOCATION OF CONTROLS	3
RECORDING	4
DISASSEMBLY INSTRUCTIONS	5
ADJUSTMENT PROCEDURE	6
PRINTED CIRCUIT BOARDS	7 ~ 11
WIRING CONNECTION DIAGRAM	11, 12
BASIC OPERATION OF INPUT SELECTOR CONTROL CIRCUIT	13
SERVICING PARTS FOR EQUALIZER DIFFERENTIAL TRANSISTORS (Q101 ~ Q108)	13
BLOCK DIAGRAM	14, 15
SCHEMATIC DIAGRAM	16 ~ 21
RESISTORS & CAPACITORS	22
REPLACEMENT PARTS LIST	23
EXPLODED VIEWS	24, 25

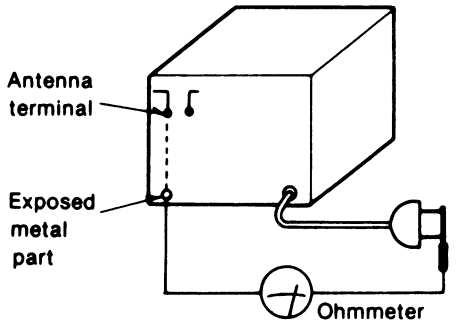
■ SAFETY PRECAUTION

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

• INSULATION RESISTANCE TEST

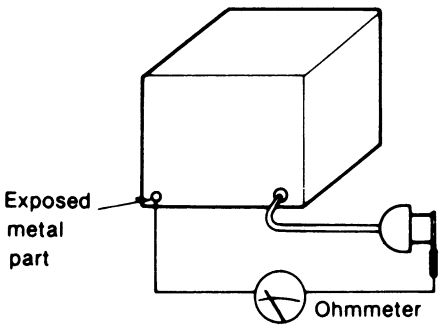
1. Unplug the power cord and short the two prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screwheads antenna, control shafts, handle brackets, etc. Equipment with antenna terminals should read between 3MΩ and 5.2MΩ to all exposed parts. (Fig. A) Equipment without antenna terminals should read approximately infinity to all exposed parts. (Fig. B)

Note: Some exposed parts may be isolated from the chassis by design. These will read infinity.



(Fig. A)

Resistance = 3MΩ—5.2MΩ

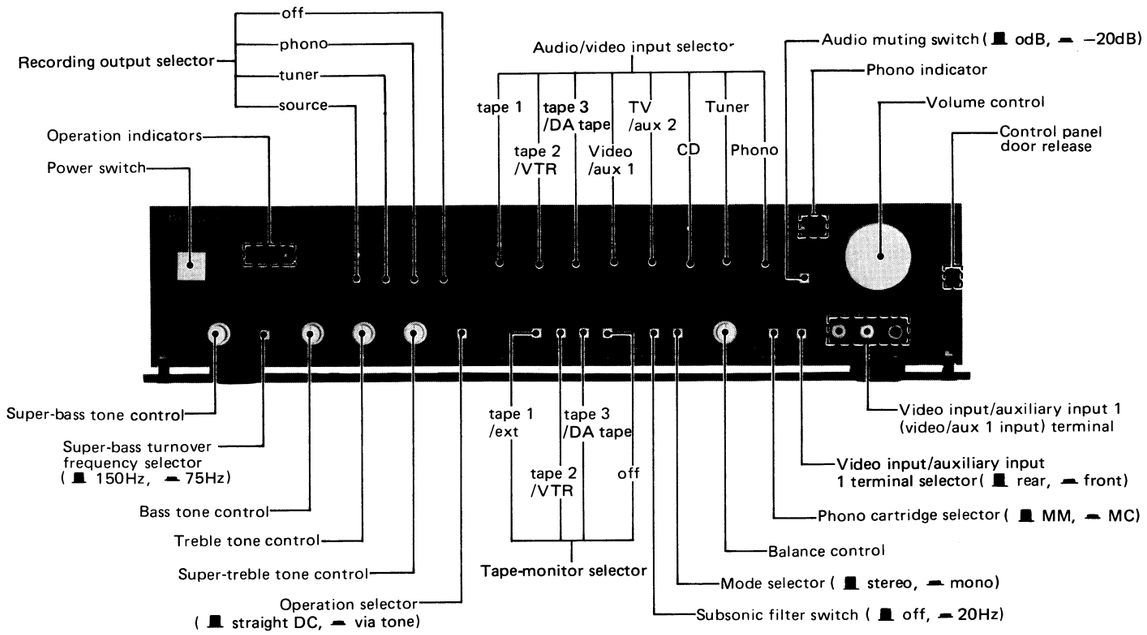


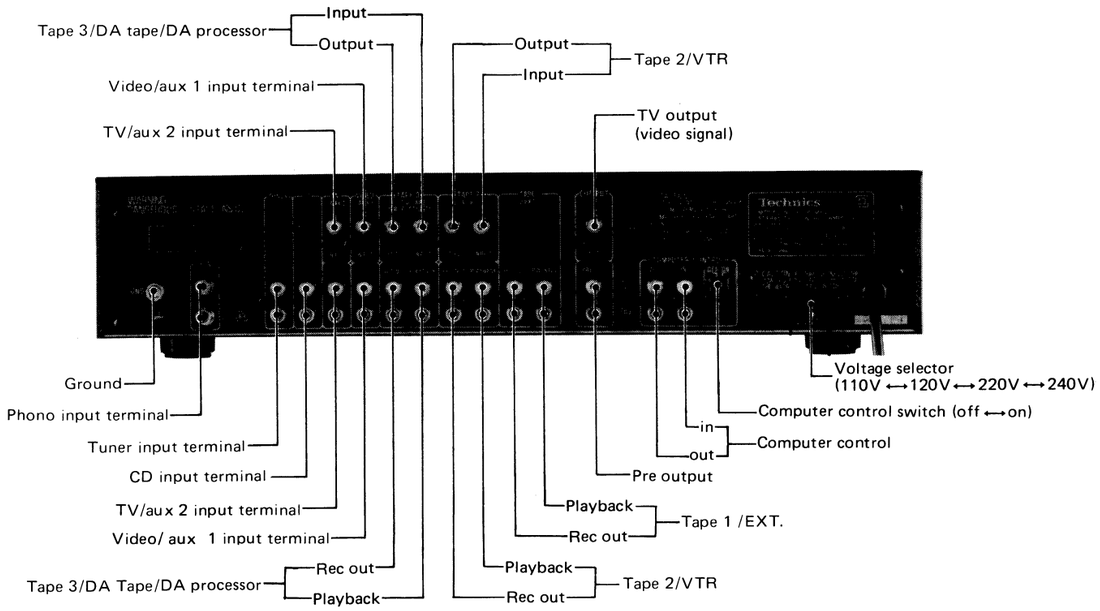
(Fig. B)

Resistance = Approx ∞

4. If the measurement is outside the specified limits, there is a possibility of a shock hazard. The equipment should be repaired and rechecked before it is returned to the customer.

■ LOCATION OF CONTROLS

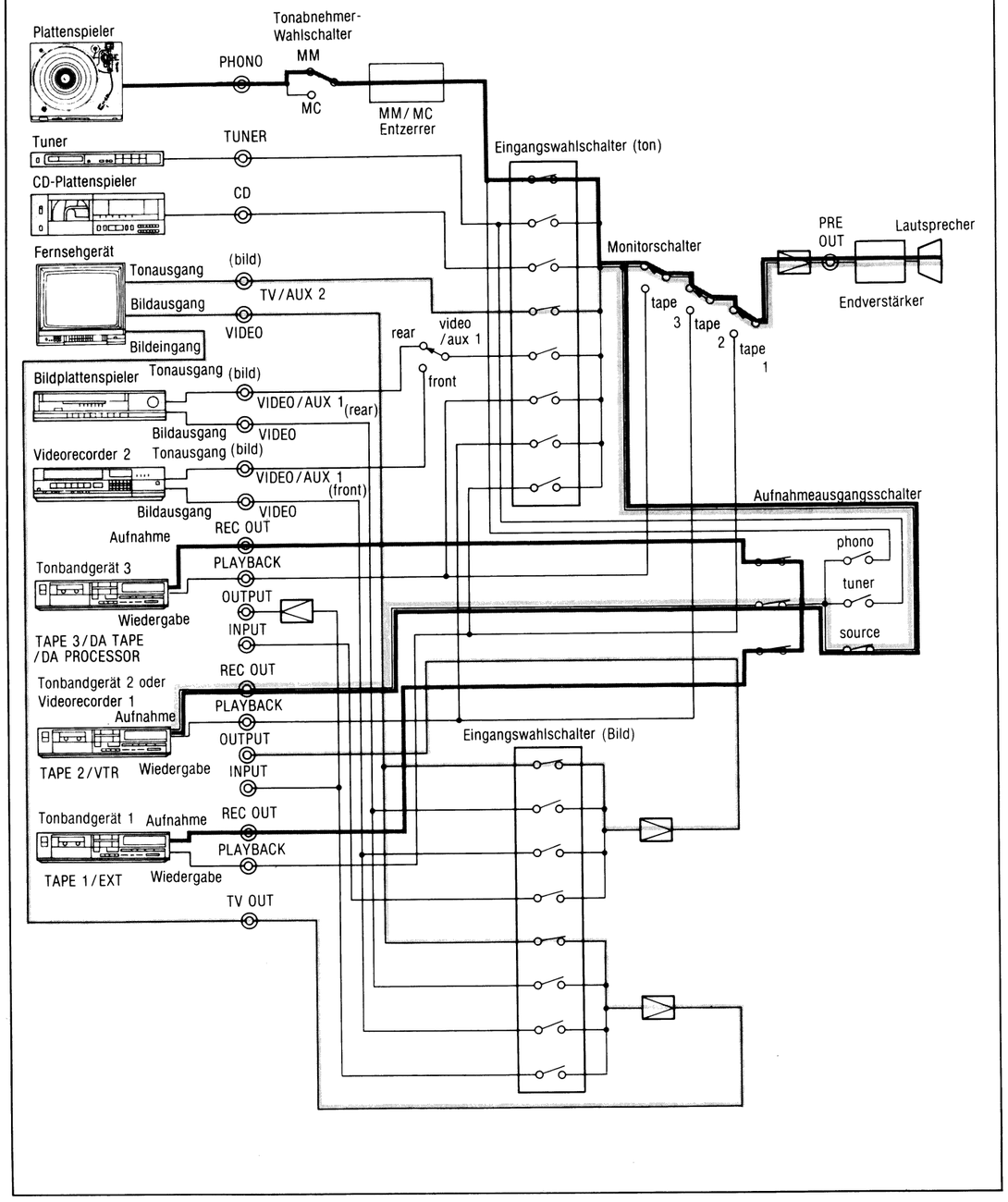




● Phono input capacitance is about 150pF.

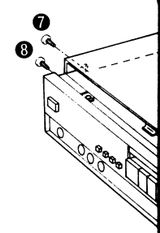
■ RECORDING

- **Aufnahme einer Schallplatte mit den drei Cassettendecks**
- **Aufnahme von Fernsehsendungen**



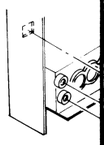
■ DISASSE

Ref. No. 1	How
Procedure 1	•



Ref. No. 3	How
Procedure 1 → 3	• F • T • F

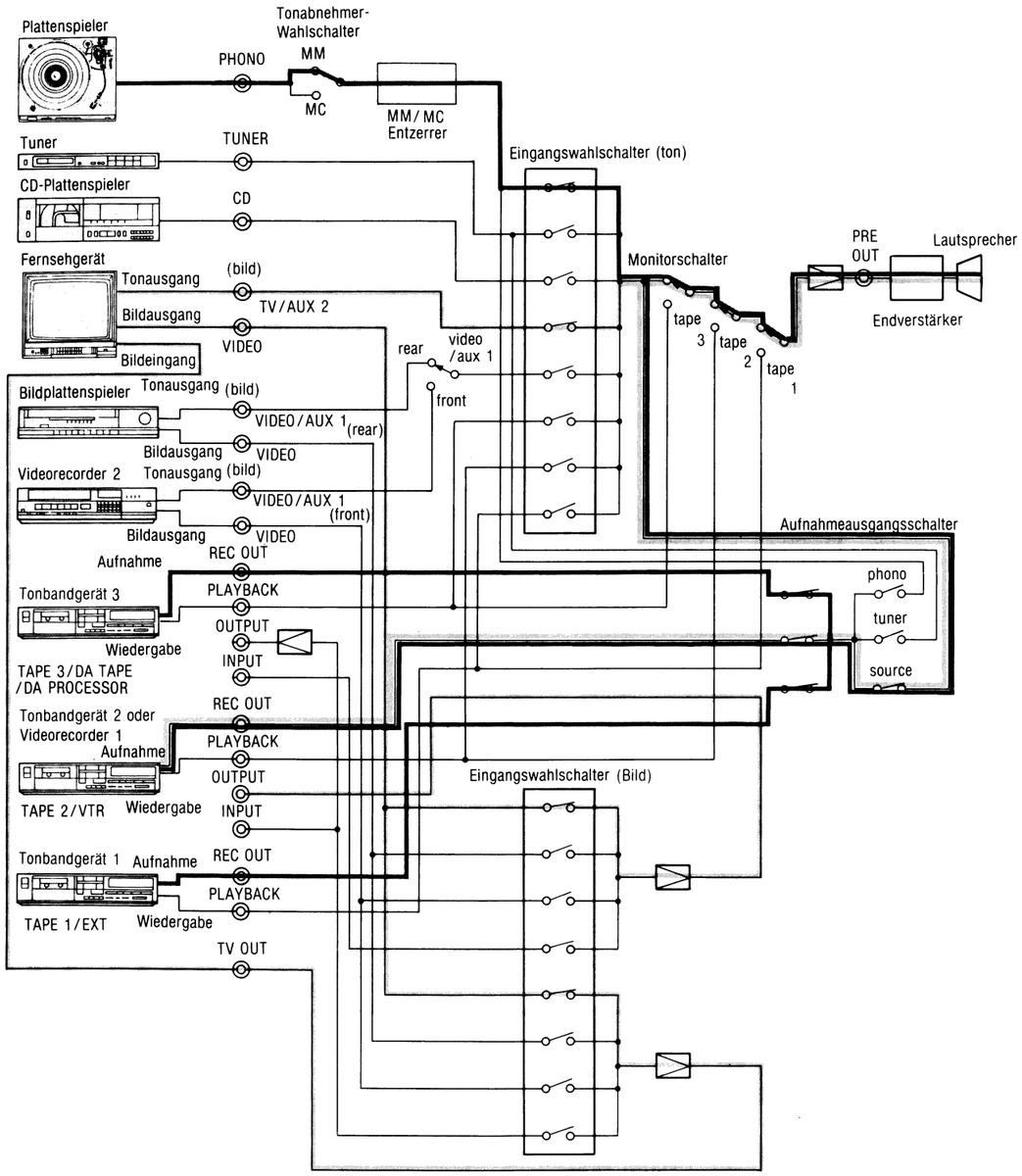
Ref. No. 4	How
Procedure 1 → 3 → 4	•



witch (odB, –20dB)
icator
olume control
Control panel door release
input/auxiliary input 1
'aux 1 input) terminal
xiliary input
ctor (rear, front)
elector (MM, MC)
mono)
- 20Hz)
elector
•120V ⟷ 220V ⟷ 240V)
witch (off ⟷ on)

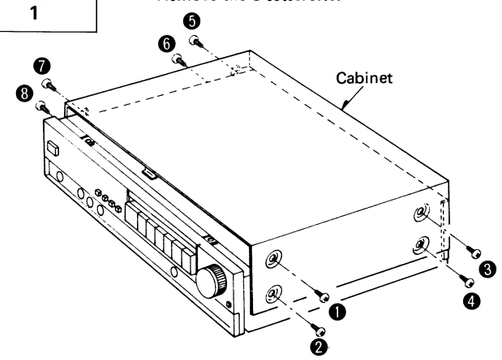
■ RECORDING

- **Aufnahme einer Schallplatte mit den drei Cassettendecks**
- **Aufnahme von Fernsehsendungen**

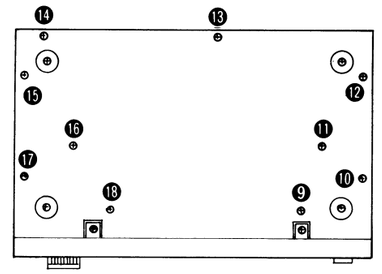


■ DISASSEMBLY INSTRUCTIONS

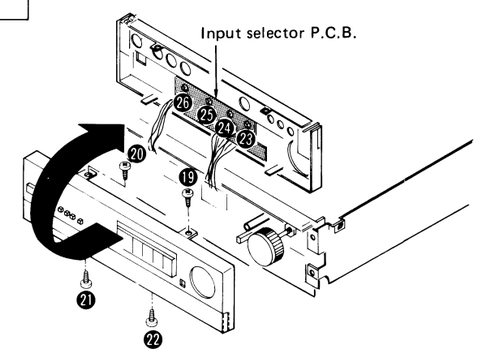
Ref. No. 1	How to remove the cabinet.
Procedure 1	• Remove the 8 setscrews.



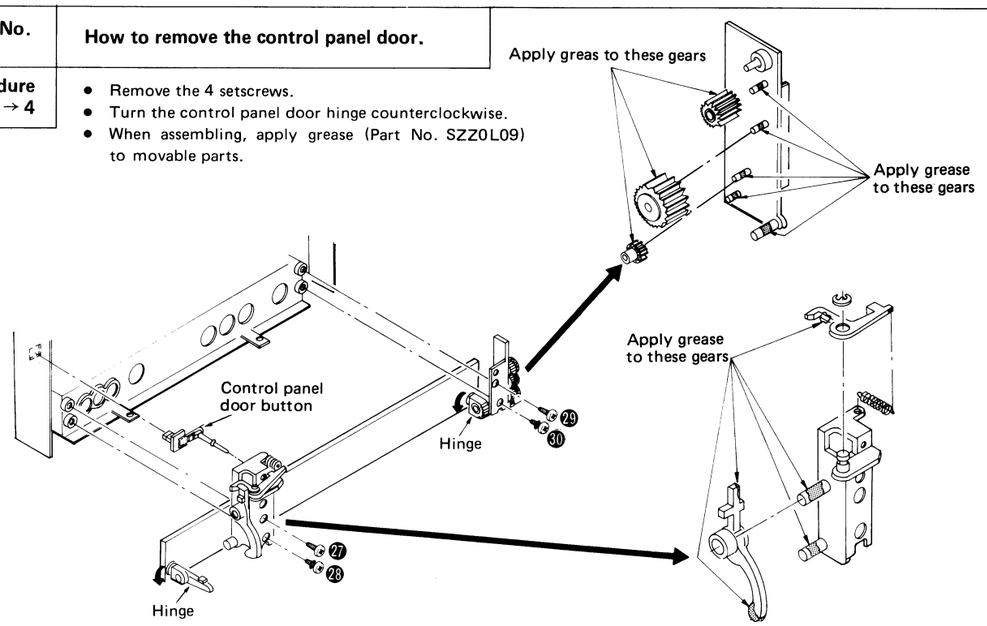
Ref. No. 2	How to remove the bottom board.
Procedure 2	• Remove the 10 setscrews.



Ref. No. 3	How to remove the front panel.
Procedure 1 → 3	• Remove the 4 setscrews (⑲ ~ ㉒). • Turn it over as shown by arrow. • Remove the 4 setscrews of input selector P.C.B.



Ref. No. 4	How to remove the control panel door.
Procedure 1 → 3 → 4	• Remove the 4 setscrews. • Turn the control panel door hinge counterclockwise. • When assembling, apply grease (Part No. SZZ0L09) to movable parts.



■ ABGLEICH-METHODE

• Einstellungen am Gerät und zu verwendende Instrumente

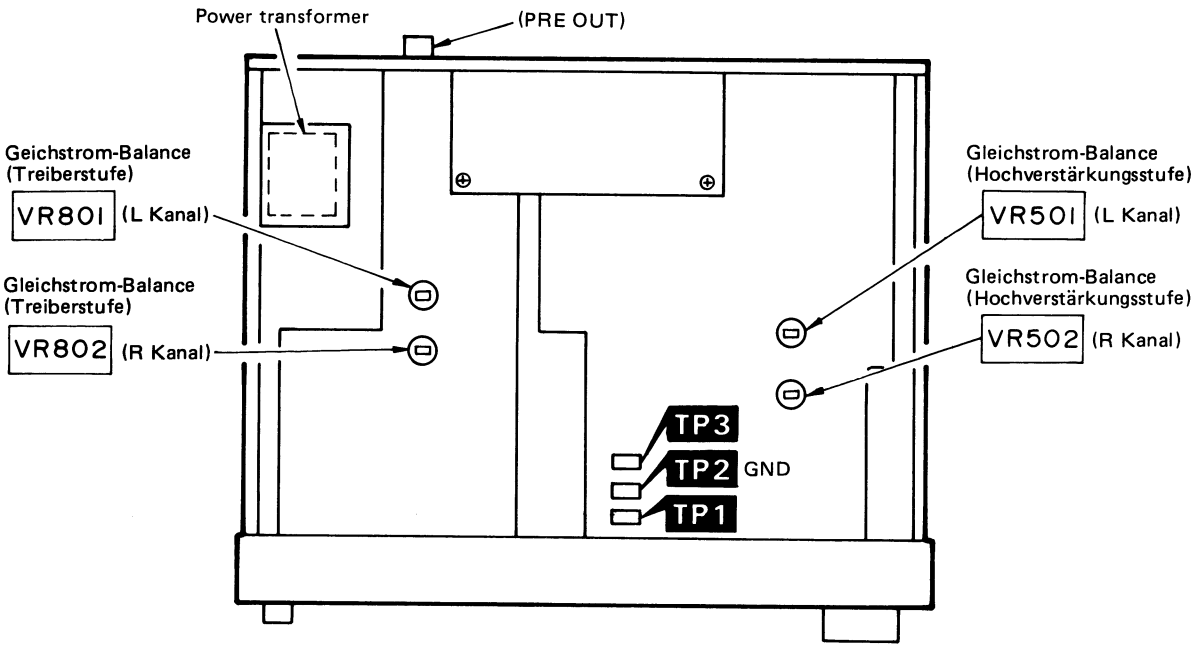
1. Eingangs—Wahlschalter . . . . . tuner
2. Betriebsart—Wahlschalter . . . . . DC
3. Balanceregelung . . . . . center
4. Lautstärkeregelung . . . . . 0dB (MAX)
5. Gleichstrom-Voltmeter (Hochpräzisions-Typ).

Achtung

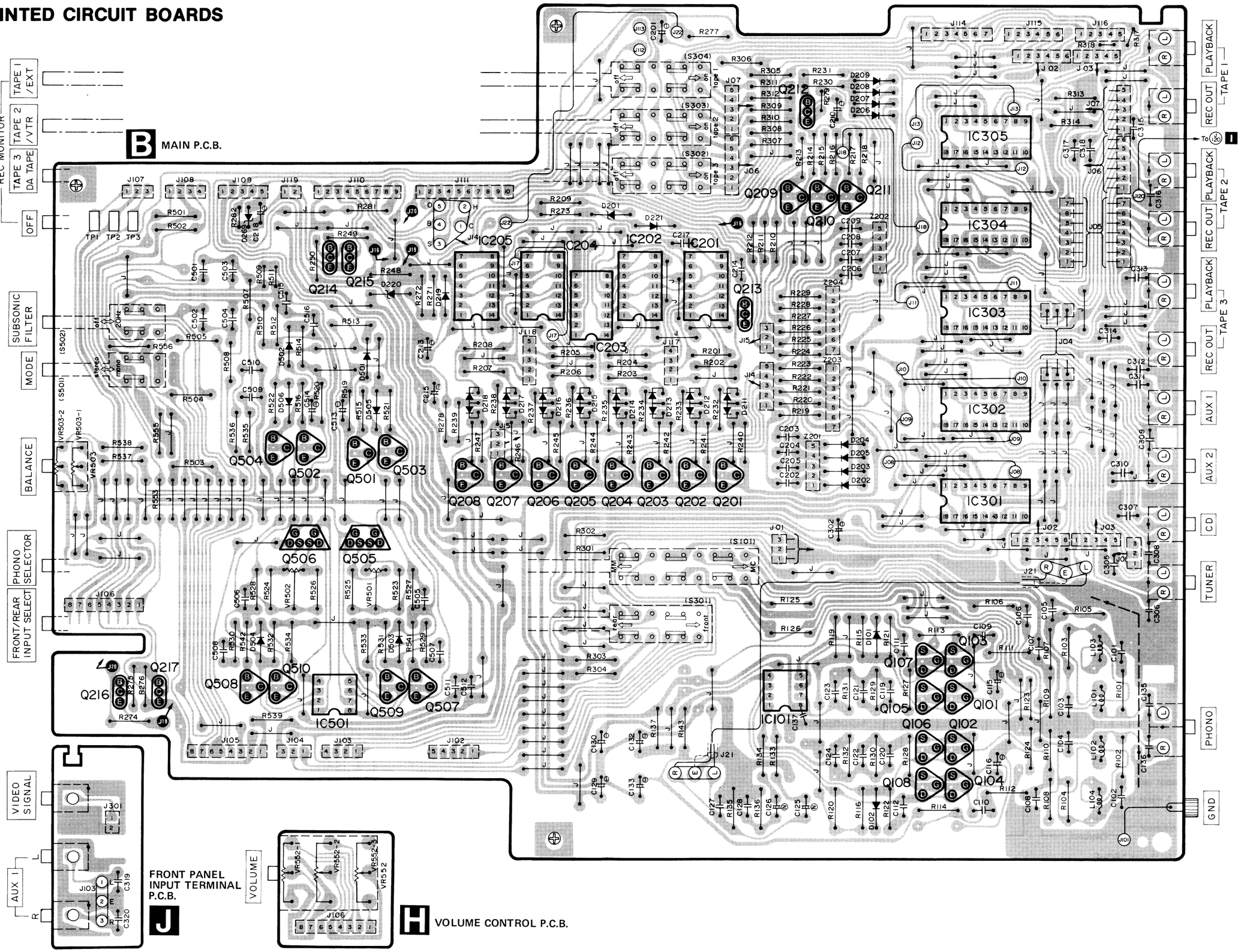
Nach dem Einschalten des Gerätes ist mindestens 2 Minuten lang zu warten, bevor die Justierung durchgeführt wird.

Justierung	Gleichstrom-Voltmeter-Anschlüsse	Zu justierender Drehwiderstand	Vorgehen
Gleichstrom-Balance (Treiberstufe)	L.K: Gleichstrom-Voltmeter zwischen TP1 und TP2 (Masse) anschließen.	VR501	VR501 (L.K.) und VR502 (R.K.) so justieren, daß das Gleichstrom-Voltmeter 0 ±0,1mV anzeigt.
	R.K: Gleichstrom-Voltmeter zwischen TP3 und TP2 (Masse) anschließen.	VR502	
Gleichstrom-Balance (Hochverstärkungsstufe)	L.K: Gleichstrom-Voltmeter an den ausgangsanchluß (Pre out) anschließen.	VR801	VR801 (L.K.) und VR802 (R.K.) so justieren, daß, das Gleichstrom-Voltmeter 0 ±0,5mV anzeigt.
	R.K: Gleichstrom-Voltmeter an den ausgangsanschluß (Pre out) anschließen.	VR802	

• Zu justierende Punkte

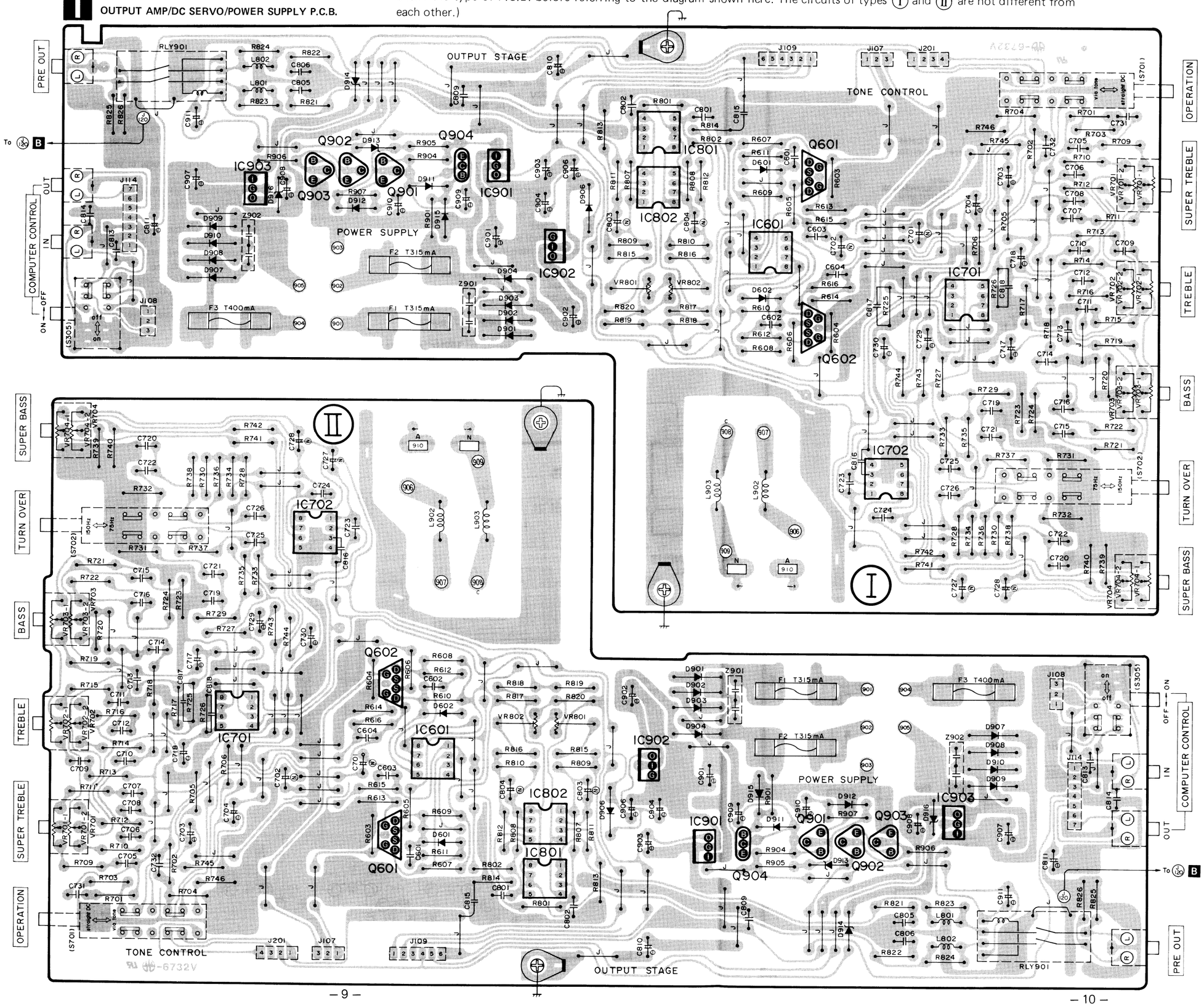


■ PRINTED CIRCUIT BOARDS

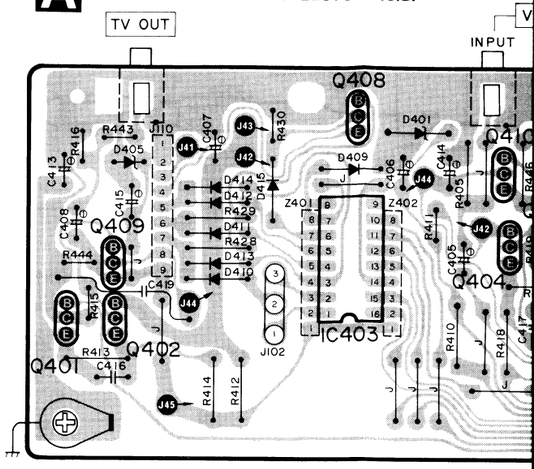


I OUTPUT AMP/DC SERVO/POWER SUPPLY P.C.B.

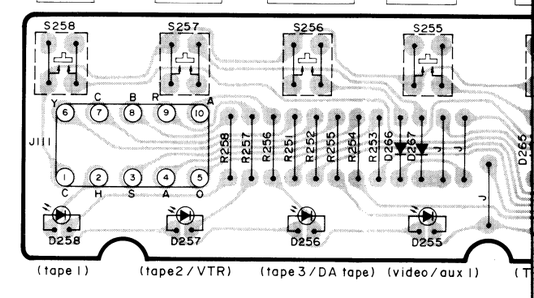
(This P.C.B. is available in two types Ⓘ and Ⓘ for the convenience of manufacture. Ⓘ or Ⓘ is printed on the P.C.B. So, check the type of P.C.B. before referring to the diagram shown here. The circuits of types Ⓘ and Ⓘ are not different from each other.)



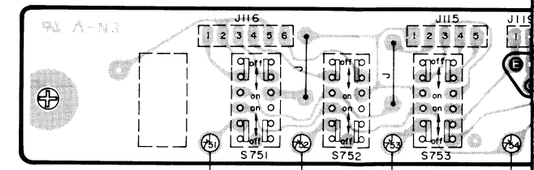
A VIDEO SIGNAL INPUT SELECTOR P.C.B.



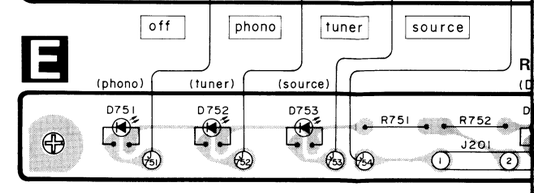
F INPUT SELECTOR SWITCH/IND. P.C.B.



D RECORDING OUTPUT SELECTOR SWITCH P.C.B.

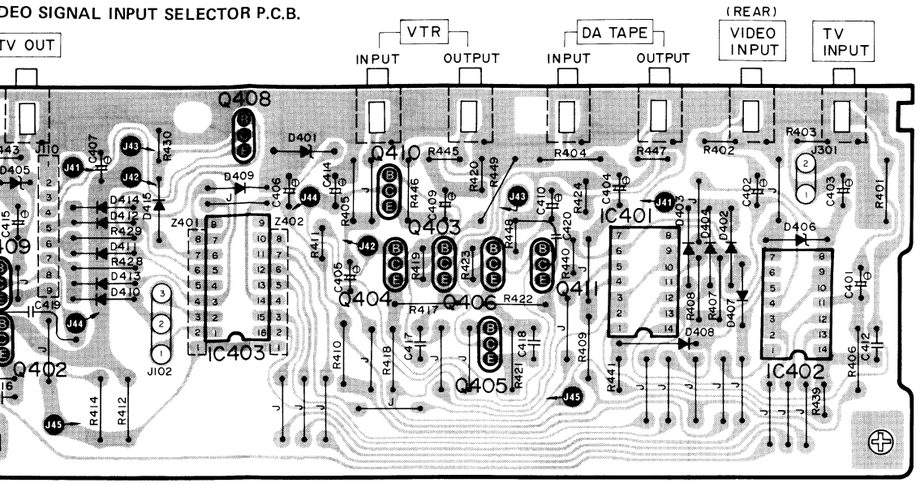


E

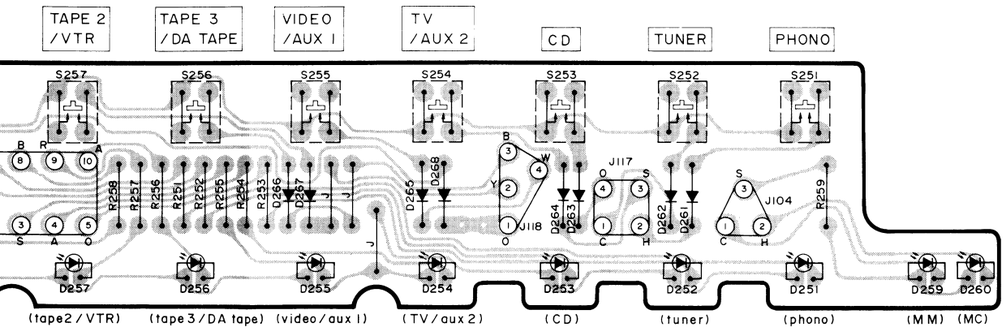


■ WIRING CONNECTION DIAGRAM (Top View)

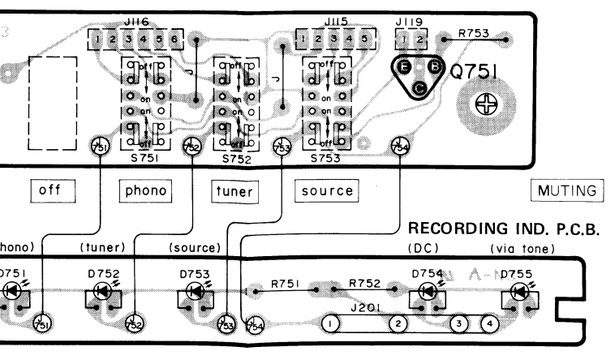
DEO SIGNAL INPUT SELECTOR P.C.B.



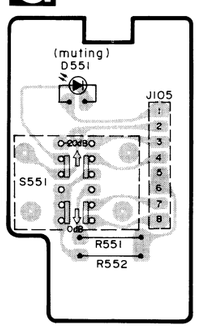
UT SELECTOR SWITCH/IND. P.C.B.



CORDING OUTPUT SELECTOR SWITCH P.C.B.

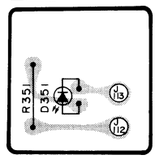


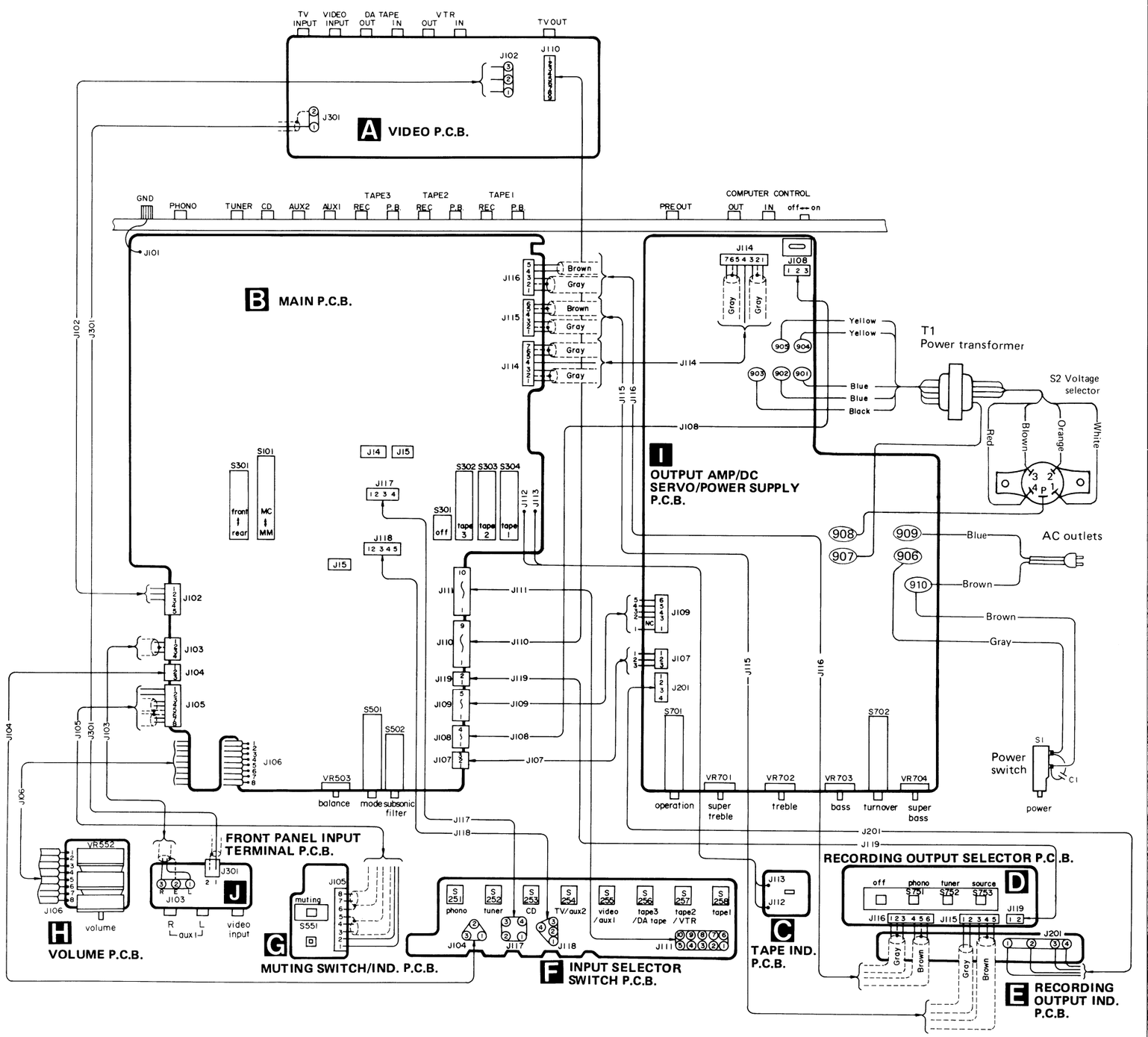
G MUTING/IND. P.C.B.



TAPE MONITOR IND. P.C.B.

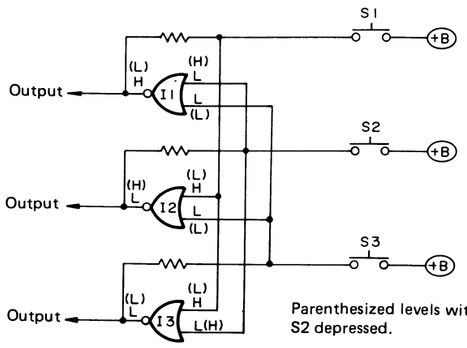
C





■ BASIC OPERATION OF INPUT SELECTOR CONTROL CIRCUIT

The input selector control circuit is a flip-flop circuit using NOR gate. The output of NOR gate goes "L" when even one of the input terminals is at "H". For example, with tact switch S1 depressed as shown below, the level of signal applied to input terminals of and I3 is "H", and the output goes "L". The outputs of I2 and I3 are applied to input terminals of I1, causing only the level of I1 to go "H". With S2 depressed, "H" is applied to input terminals of I1 and I3, causing the output of I1 to change from "H" to "L". The output is then applied to I2 and I3, changing the output of I2 to "H" and that of I3 to "L". The circuit of this unit is of 8-stage configuration as shown in the block diagram, and operates as explained above.



Parenthesized levels with S2 depressed.

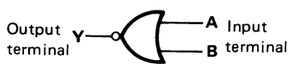


Table of logic

Output	Input	
Y	A	B
H	L	L
L	H	L
L	L	H
L	H	H

■ SERVICING PARTS FOR EQUALIZER DIFFERENTIAL TRANSISTORS (Q101～Q108)

The equalizer differential transistors (Q101～Q108) used in this unit are 2SK369. However, when replacing the parts, be sure to use servicing repair parts 2SK146.

• Pairs replaced

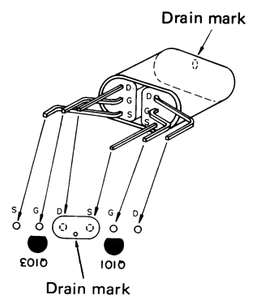
When one of the parts in pair shown below is replaced, remove the other one as well and insert 2SK146 instead.

Combination 1	2	3	4
Q101 ↕ Q103	Q102 ↕ Q104	Q105 ↕ Q107	Q106 ↕ Q108

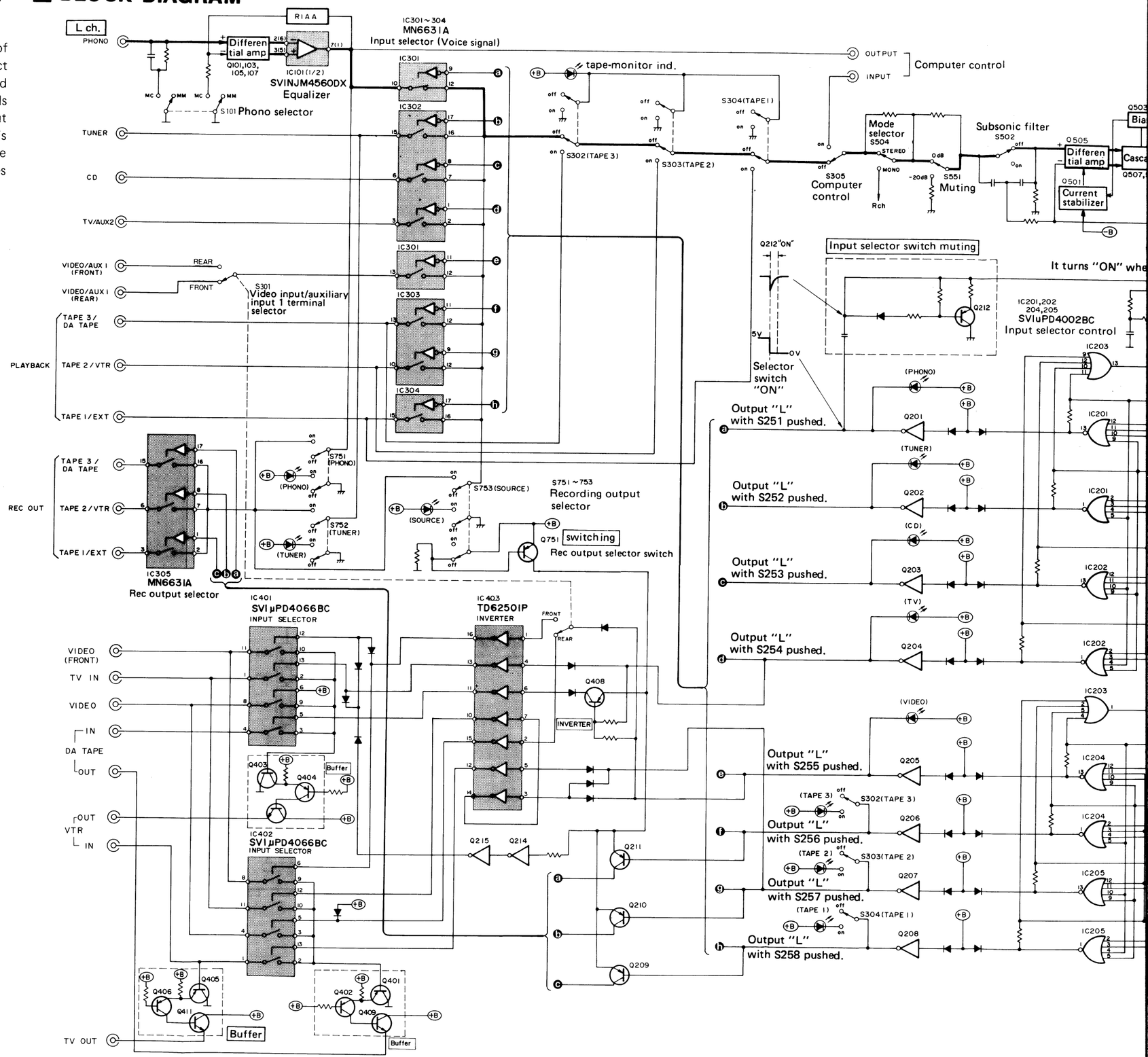
• How to fit

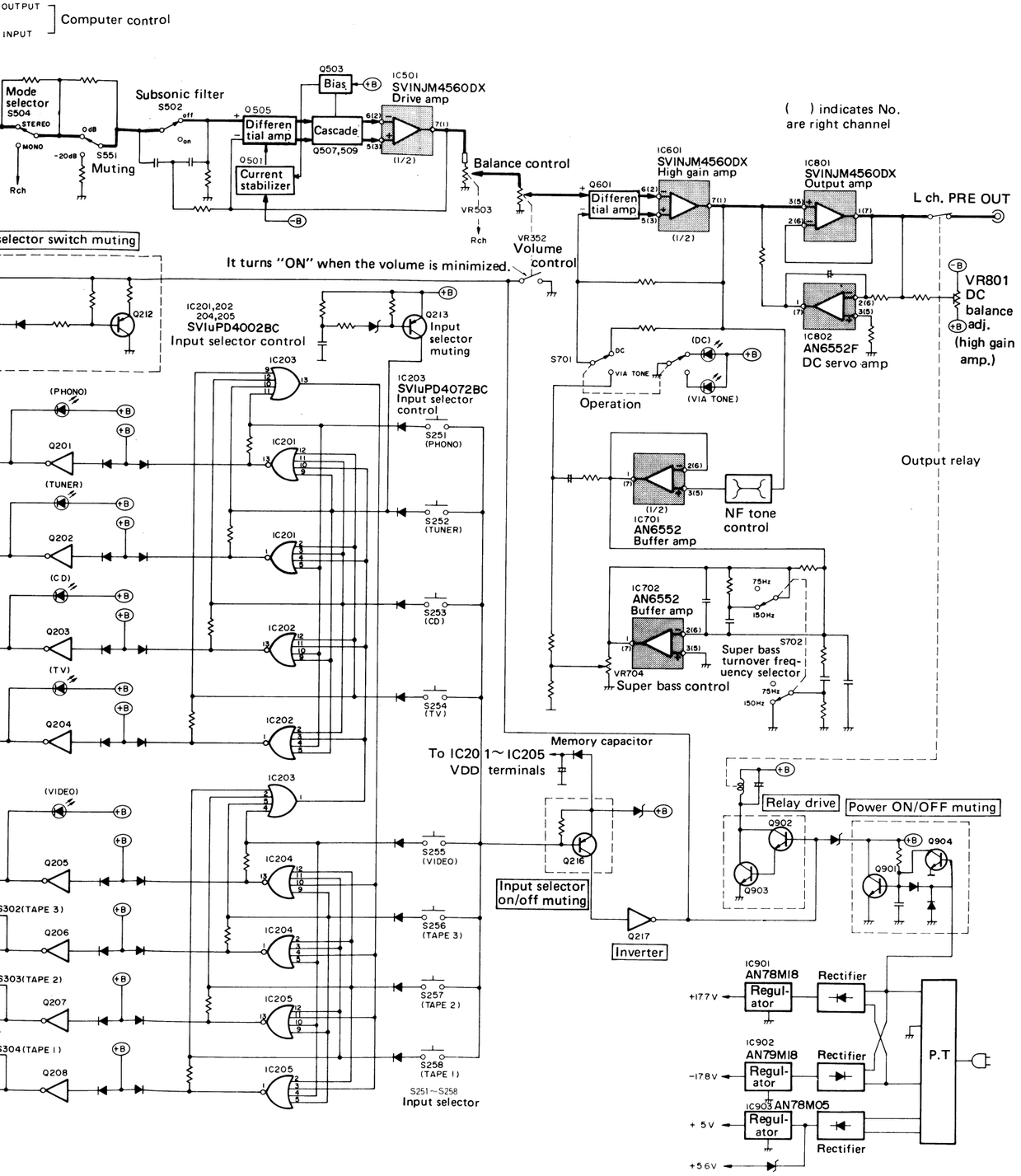
① 2SK146 includes 2 transistors. So, bend the legs as shown and put 2 or 3mm tube on each gate leg to prevent shorting between the leads.

② 2SK146 must be correctly inserted according to D, G and S indicated on the surface.



■ BLOCK DIAGRAM





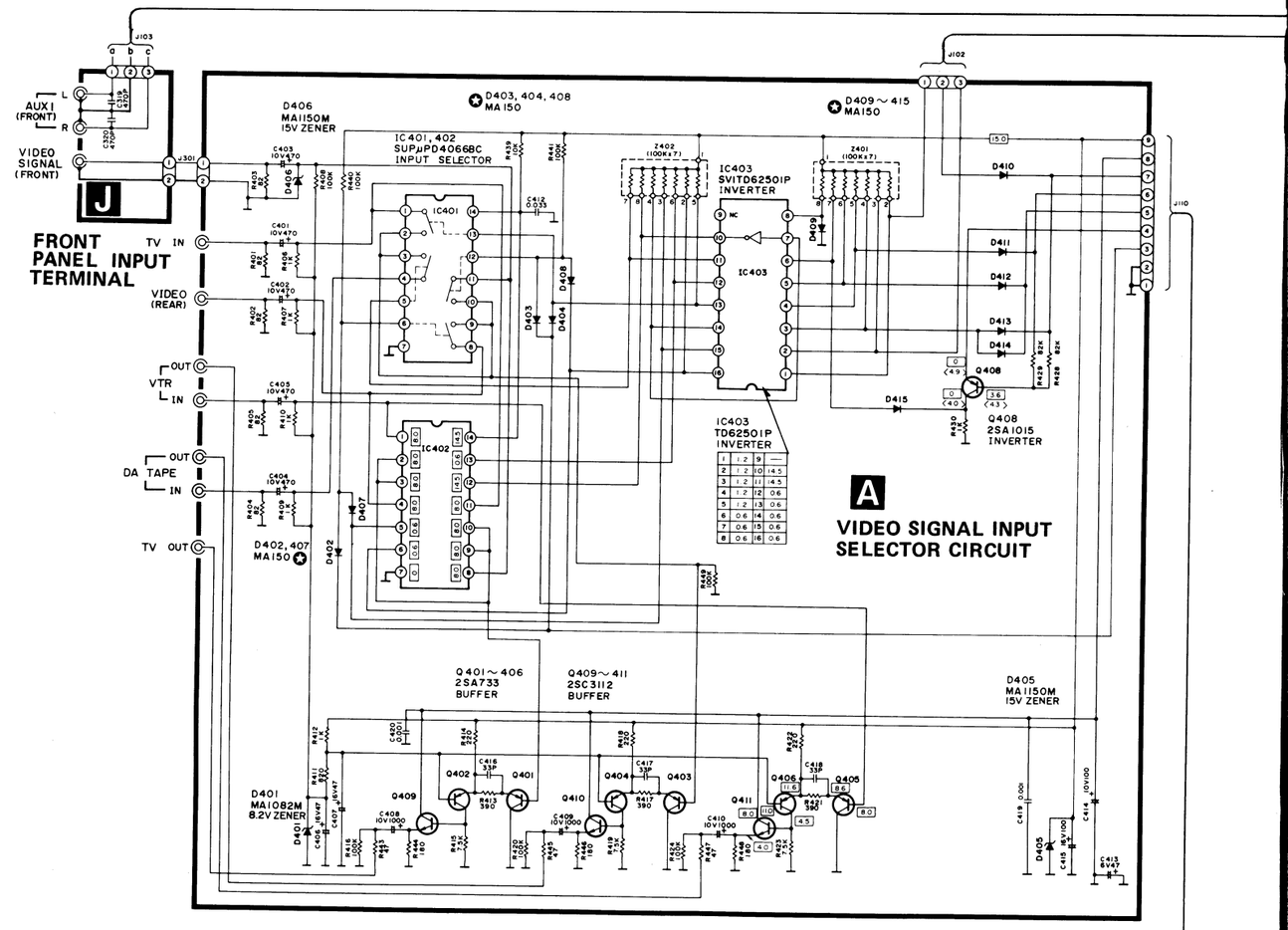
SCHEMATIC DIAGRAM

(This schematic diagram may be modified at any time with the development of new technology.)

Notes:

1. **S1** : Power switch in **"on"** position
2. **S2** : Voltage selector in **"240V"** position. (110V ↔ 220V ↔ 120V ↔ 240V)
3. **S101** : Phono selector switch in **"MM"**-position (MM ↔ MC)
4. **S251 ~ 258** : Input selector switch in **"phono"** position
   S251: phono S255: video/aux 1
   S252: tuner S256: tape 3/DA tape
   S253: CD S257: tape 2/VTR
   S254: TV/aux 2 S258: tape 1
5. **S301** : Front/Rear selector in **"Rear"** position
6. **S302 ~ 304** : Tape monitor switch in **"off"** position
   S302: tape 3/DA tape S303: tape 2/VTR
   S304: tape 1/ext
7. **S305** : Computer control switch in **"off"** position
8. **S501** : Mode selector switch in **"stereo"** position (stereo ↔ mono)
9. **S502** : Subsonic filter switch in **"off"** position (off ↔ 20Hz)
10. **S551** : Muting switch in **"0dB"** position (0dB ↔ –20dB)
11. **S701** : Operation switch in **"straight DC"** position (straight DC ↔ via tone)
12. **S702** : Turnover frequency switch in **"150Hz"** position (75Hz ↔ 150Hz)
13. **S751 ~ 753** : Recording selector switch in **"off"** position
    S751: phono S753: source
    S752: tuner
14. ▭ Indicated voltage values are the standard values for the DC electronic circuit tester (high impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
    Fignres in < > stand for DC voltage in Video, TV signal reception mode.
15. ▒▒▒ Phono signal lines of left channel.
16. ——— Positive (+B) voltage lines.
17. Important safety notice:
    Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

- The part No. of transistors, IC and diodes mentioned in the schematic diagram stand for production part No. Regarding the part No. with ✪ mark, the production part No. are different from the replacement part No. Therefore, when placing an order for replacement parts, please use the part No. in the replacement parts list.



B MAIN CIRCUIT

PHONO L R
GND
TUNER L R
CD L R
AUX2 L R
AUX1 (rear) L R
TAPE3 REC OUT / PLAYBACK L R
TAPE2 REC OUT / PLAYBACK L R
TAPE1 REC OUT / PLAYBACK L R

R101 1K, R103 2.7K, L101, L103, C135 120P, C101, C103
L102 10, L104 10, R102 1K, R104 2.7K, C136, C102, C104
C305 470P, C306 470P, C307 470P, C308 470P, C309 470P, C310 470P

J103 a b c
J102 1 2 3 4 5
R303 820K, R304 820K
R301 820K, R302 820K, S301 (FRONT/REAR (SE ECTOR), C312, C311
C313, C314, C315, C316, C317, C318

S101 (PHONO SELECTOR) MM MC

Q101~108 2SK369 DIFFERENTIAL AMP
D101,102 MA150
D101, Q101 Q105 Q107 Q103, R107 2.2K, R105 100K, R109 47K, C105 0.0022, C109 100P, R111 1K, R125 3.3, R113, R123 6.8Ω, C115 6V2200
D102, Q102 Q106 Q108 Q104, R116, R122, C112, R120, R106, R108, C108, R110, R112, C110, C116, R126, R114, R124, C106 0.1
R115 1K, R121 390, C111 0.0047, R119 1K
C120 J0.0015, C118 G0.018, C123 G0.068, R129 F3.9K, R131 F.47K, R127 120
C132 25V220, C129 25V100, R137 220
N C125 25V3.3, R133 560, R135 100K, C127 25V220, C131 J0.0068
C121 0.1, R117 1K
IC101, C137 0.01, C122, C120, C124, R128, R130, R132, N C126 R134, R136, C128 0.1, C130 25V47, C133 25V100, R143 220
IC101 SVINJM4560DX EQUALIZER

8	7	6	5
17.7	0	6.5	6.5

1	2	3	4
0	6.5	6.5	-17.1

TUNER, CD, AUX 2, AUX 1, TAPE3 REC OUT, TAPE3 PLAYBACK, TAPE2 REC OUT, TAPE2 PLAYBACK, TAPE1 REC OUT, TAPE1 PLAYBACK

C

D351 SVDPR5533K TAPE MONITOR IND.
D351, R351 330, J113, J112

J114 7 6 5 4 3 2 1

S304 (TAPE 1), S303 (TAPE 2), S302 (TAPE 3) off on
R311 820K, R312, R309 820K, R310, R307 820K, R308

IC301 ~ 305 MN6631A INPUT SELECTOR
Q212 2SA1015 INPUT SELECTOR MUTING

IC301

18	17	16	15	14	13	12	11	10
17.7	4.8	0	0	5.0	0	0	4.8	0

1	2	3	4	5	6	7	8	9
3.5	0	0	-17.1	0	0	0	0	0

IC302

18	17	16	15	14	13	12	11	10
17.7	3.5	0	0	5.0	0	0	0.1	0

1	2	3	4	5	6	7	8	9
0.1	p	0	-17.1	0	0.2	0	3.4	3.4

IC 303

18	17	16	15	14	13	12	11	10
17.7	4.8	0	0	5.0	0	0	4.8	0

1	2	3	4	5	6	7	8	9
4.8	0	0	-17.1	0	0	0	4.8	4.8

IC 304

18	17	16	15	14	13	12	11	10
17.7	4.8	0	0	5.0	0	0	5.0	0

1	2	3	4	5	6	7	8	9
0	0	0	-17.1	0	0	0	0	0

IC 305

18	17	16	15	14	13	12	11	10
17.7	0	0	0	5.0	0	0	0	0

1	2	3	4	5	6	7	8	9
0	0	0	-17.7	0	0	0	0	0

R305 820K, R314 820K, R304 820K, R313 820K, R306 820K

IC201

14	13	12
14.1	0	0

1	2	3
14.1	0	0

IC203

14	13	12
14.1	14.1	0

1	2	3
0	0	0

Z202 100K x 4, Z203 0.01 x 6, Z204 0.01 x 6
D202~209 MA150
R219 330K, C209, C208 0.033, C207 0.033, C206 0.033, C205 0.033, R220 330K, R221 330K, R222 330K, R223 330K, R224 330K, R225 330K, R226 330K, R227 330K, R228 330K, R229 330K
R250 47K, Q215, Q214, R248 56K, R215 10K, R216 10K, R214 10K
Q214,215 2SC1685NC INVERTER
R318 1K, R317, R281 56Ω
J116 f d c b a, J115 f e d c b a, J110 a b c

D

RECORDING OUTPUT SELECTOR SWITCH

J201 A, 751 752 753 754
D751 D752 D753 R751 220 D754 R754 220
D751~754 SVDPR5533K
D755 SVDAY5533K-M STRAIGHT DC IND.
Q751 2SA1015, R733 47K
S753 (SOURCE), S752 (TUNER), S751 (PHONO), (OFF)
J119, J115 f e d c b a, J116 f e d c b a

E

RECORDING IND
D751 ~ 754 SVDPR5533K
D751 : REC SELECTOR (PHONO) IND.
D752 : REC SELECTOR (TUNER) IND.
D753 : REC SELECTOR (SOURCE) IND.
D754 : VIA TONE IND.

G MUTING/IND

S551 (MUTING)
D551 SVDPR5735S MUTING IND.

H VOLUME CONTROL

S501 (MODE) stereo — mono
VR552-1 (Balance)
VR552-2 (Volume)
VR552-3

I

Q601,602 2SK389 FET DIFFERENTIAL AMPLIFIER
D601,602 MA150
S305 (COMPUTER CONT)
D601
Q601
IC601
D602
VR303-1
VR303-2 Balance
IC602
S701 (OPERATION) Straight DC — Via tone
IC701
S702 Super bass
IC702
IC702 AN6552F BUFFER AMPLIFIER

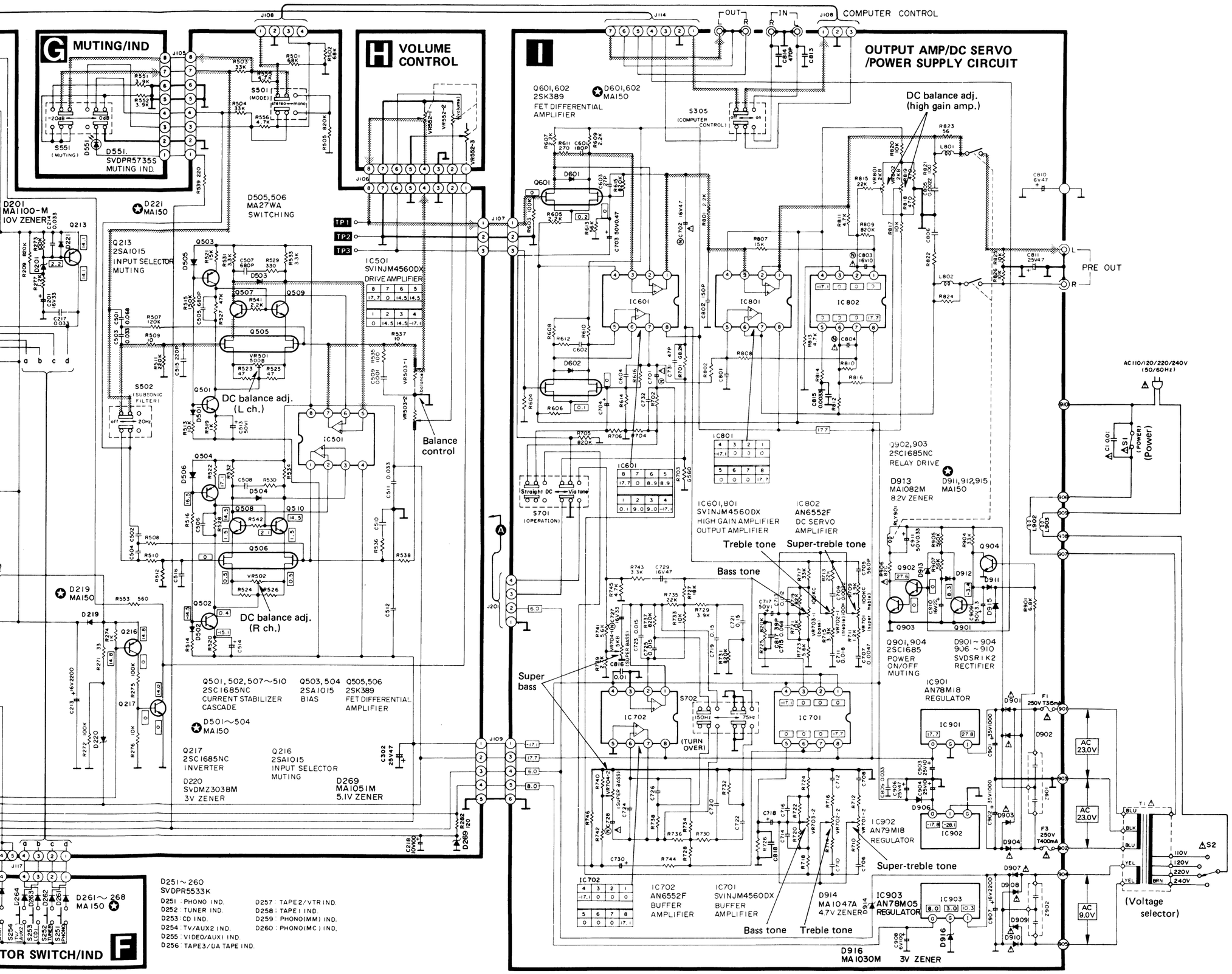
IC301 MN6631A INPUT SELECTOR
IC301 ~ 305 MN6631A INPUT SELECTOR
Q212 2SA1015 INPUT SELECTOR MUTING
D202 ~ 209 MA150
Z202 100K x 4
Z201 100K x 4
Z203 0.01 x 6
Z204 0.01 x 6
D206 D202 D207 D203 D208 D204 D209 D205
IC302
IC 303
IC 304
IC 305

D211 ~ 218 SVDMC911
IC201, 202, 204, 205 SVIμPD4002BC LATCH CIRCUIT
IC201
IC203
Q201 Q202 Q203 Q204 Q205 Q206 Q207 Q208
D211 D212 D213 D214 D215 D216 D217 D218
NOR gate
OR gate
IC202
IC204
IC 205
Q201 ~ 208 2SC1685NC INVERTER (INPUT SELECTOR CONTROL)
IC203 SVIμPD4072BC LATCH CIRCUIT
Q209 ~ 211 2SA1015 INVERTER
Q214,215 2SC1685NC INVERTER
Q209 Q210 Q211

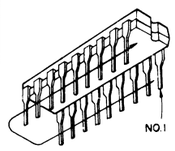
D201 MA1100-M 10V ZENER
Q213 2SA1015 INPUT SELECTOR MUTING
D221 MA150
D505,506 MA27WA SWITCHING
IC501 SVINJM4560DX DRIVE AMPLIFIER
TP1 TP2 TP3
Q503 Q505 Q507 Q509 Q501 Q504 Q506 Q508 Q510 Q502
D501 D503 D504 D506 D502
VR501 5008
VR502
DC balance adj. (L ch.)
DC balance adj. (R ch.)
S502 (SUBSONIC FILTER) off — 20Hz
D219 MA150
Q216 Q217
D220 SVDMZ3038M 3V ZENER
D269 MA1051M 5.1V ZENER
Q501, 502, 507 ~ 510 2SC1685NC CURRENT STABILIZER CASCADE
Q503, 504 2SA1015 BIAS
Q505, 506 2SK389 FET DIFFERENTIAL AMPLIFIER
D501 ~ 504 MA150
Q217 2SC1685NC INVERTER
Q216 2SA1015 INPUT SELECTOR MUTING

D251 ~ 260 SVDPR5533K
D261 ~ 268 MA150
INPUT SELECTOR SWITCH/IND
D251 : PHONO IND.
D252 : TUNER IND.
D253 : CD IND.
D254 : TV/AUX2 IND.
D255 : VIDEO/AUX1 IND.
D256 : TAPE3/DA TAPE IND.
D257 : TAPE2/VTR IND.
D258 : TAPE1 IND.
D259 : PHONO(MM) IND.
D260 : PHONO(MC) IND.

19 20 21 22 23 24 25 26 27 28

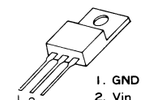


• Terminal guide of transistors diodes and IC's

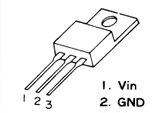


MN6631A	18pin
SVITD62501P	16pin
SVIUPD4002BC	14pin
SVIUPD4072BC	14pin
SVIUPD4066BC	14pin
SVINJM4560DX	8pin
AN6552	8pin

AN79M18



AN78M05
AN78M18



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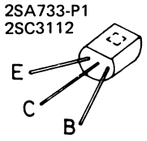
2SA1015-Y
2SA733-P1
2SC3112



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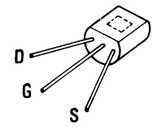
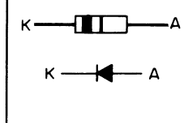


MA162A



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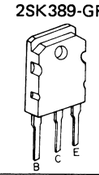

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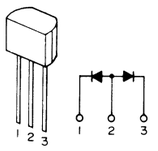
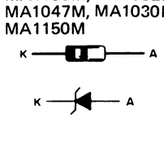


MA1100M, MA1082M
MA1047M, MA1030M
MA1150M



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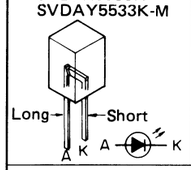
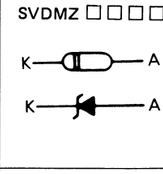


SVDMZ □□□□



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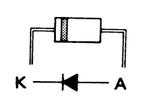

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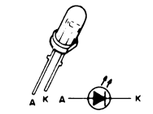
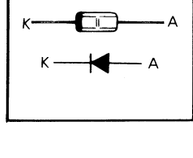
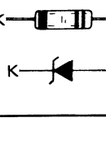


MA27W–A



MA1082M



■ RESISTORS & CAPACITORS

Notes: 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
2. Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
3. The "Ⓢ" mark is service standard parts and may differ from production parts.
4. The unit of resistance is OHM (Ω). K = 1000Ω, M = 1000KΩ
5. The unit of capacitance is MICROFARAD (μF). P = 10^{-6}μF

Numbering System of Resistor

Example

ERD	25	F	J	101
Type	Wattage	Shape	Tolerance	Value
ERG	2	AN	J	2R2
Type	Wattage	Shape	Tolerance	Value

Resistor Type	Wattage	Tolerance
ERD : Carbon ERO : Metal Film	25 : 1/4W S1 : 1W	F : ± 1% G : ± 2% J : ± 5% K : ± 10%

Numbering System of Capacitor

Example

ECKD	1H	103	Z	F
Type	Voltage	Value	Tolerance	Peculiarity
ECEA	50	M	R47	R
Type	Voltage	Peculiarity use	Value	Special use

Capacitor Type	Voltage		Tolerance
	ECEA Type	Others	
ECEA : Electrolytic ECEA : Non Polar Electrolytic ECCD : Ceramic ECKD : Ceramic ECQM : Polyester ECQP : Polypropylene	0J : 6.3V 1C : 16V 1E : 25V 1H : 50V 25Z : 25V	2H : 500V ECQP1 : 100V	G : ±2% J : ±5% K : ±10% Z : +80%, −20% M : ±20%

● RESISTORS

Ref. No.	Part No.	Value
R101,102 Ⓢ	ERD25FJ102	1K
R103,104 Ⓢ	ERD25FJ272	2.7K
R105,106 Ⓢ	ERD25FJ221	220
R107,108 Ⓢ	ERD25FJ2R2	2.2
R109,110 Ⓢ	ERD25TJ473	47K
R113,114	ERO25CKG1001	1K
R115,116	ERO25CKG1001	1K
R119,120	ERO25CKG1001	1K
R121,122 Ⓢ	ERD25FJ391	390
R123,124	ERO25CKF82R0	82
R125,126 Ⓢ	ERD25FJ3R3	3.3
R127,128 Ⓢ	ERD25FJ121	120
R129,130	ERO25CKF3901	3.9K
R131,132	ERO25CKF4702	47K
R133,134 Ⓢ	ERD25FJ561	560
R135,136 Ⓢ	ERD25TJ334	330K
R137 Ⓢ	ERD25FJ221	220
R143 Ⓢ	ERD25FJ221	220
R201,202 Ⓢ	ERD25FJ103	10K
R203,204 Ⓢ	ERD25FJ103	10K
R205,206 Ⓢ	ERD25FJ103	10K
R207,208 Ⓢ	ERD25FJ103	10K
R209 Ⓢ	ERD25TJ824	820K
R210,211 Ⓢ	ERD25FJ103	10K
R212,213 Ⓢ	ERD25FJ103	10K
R214,215 Ⓢ	ERD25FJ103	10K
R216,217 Ⓢ	ERD25FJ103	10K
R218 Ⓢ	ERD25FJ103	10K
R219,220 Ⓢ	ERD25TJ334	330K
R221,222 Ⓢ	ERD25TJ334	330K
R223,224 Ⓢ	ERD25TJ334	330K
R225,226 Ⓢ	ERD25TJ334	330K
R227,228 Ⓢ	ERD25TJ334	330K
R229 Ⓢ	ERD25TJ334	330K
R230 Ⓢ	ERD25FJ103	10K
R231 Ⓢ	ERD25TJ104	100K
R232,233 Ⓢ	ERD25TJ683	68K
R234,235 Ⓢ	ERD25TJ683	68K
R236,237 Ⓢ	ERD25TJ683	68K
R238,239 Ⓢ	ERD25TJ683	68K
R240,241 Ⓢ	ERD25FJ103	10K
R242,243 Ⓢ	ERD25FJ103	10K
R224,245 Ⓢ	ERD25FJ103	10K

Ref. No.	Part No.	Value
R246,247 Ⓢ	ERD25FJ103	10K
R248 Ⓢ	ERD25FJ562	5.6K
R249 Ⓢ	ERD25FJ103	10K
R250 Ⓢ	ERD25TJ473	47K
R251,252 Ⓢ	ERD25FJ221	220
R253,254 Ⓢ	ERD25FJ221	220
R255,256 Ⓢ	ERD25FJ221	220
R257,258 Ⓢ	ERD25FJ221	220
R259 Ⓢ	ERD25FJ221	220
R270 Ⓢ	ERD25TJ103	10K
R272,273 Ⓢ	ERD25TJ104	100K
R274 Ⓢ	ERD25FJ102	1K
R275 Ⓢ	ERD25TJ104	100K
R277,278 Ⓢ	ERD25FJ122	1.2K
R279 Ⓢ	ERD25FJ561	560
R281	ERD2FCG560	56
R282	ERD2FCG121	120
R301,302 Ⓢ	ERD25TJ824	820K
R303,304 Ⓢ	ERD25TJ824	820K
R305,306 Ⓢ	ERD25TJ824	820K
R307,308 Ⓢ	ERD25TJ824	820K
R309,310 Ⓢ	ERD25TJ824	820K
R311,312 Ⓢ	ERD25TJ824	820K
R313,314 Ⓢ	ERD25TJ824	820K
R317,318 Ⓢ	ERD25FJ102	1K
R351 Ⓢ	ERD25FJ221	220
R401,402 Ⓢ	ERD25FJ820	82
R403,404 Ⓢ	ERD25FJ820	82
R405 Ⓢ	ERD25FJ820	82
R406,407 Ⓢ	ERD25FJ102	1K
R408,409 Ⓢ	ERD25FJ102	1K
R410 Ⓢ	ERD25FJ102	1K
R411 Ⓢ	ERD25FJ821	820
R412 Ⓢ	ERD25FJ102	1K
R413 Ⓢ	ERD25FJ391	390
R414 Ⓢ	ERD25FJ221	220
R415	ERD25CKF7500	7.5K
R416 Ⓢ	ERD25TJ104	100K
R417 Ⓢ	ERD25FJ391	390
R418 Ⓢ	ERD25FJ221	220
R419	ERD25CKF7500	7.5K
R420 Ⓢ	ERD25TJ104	100K
R421 Ⓢ	ERD25FJ391	390

Ref. No.	Part No.	Value
R422 Ⓢ	ERD25FJ221	220
R423 Ⓢ	ER025CKF7500	7.5K
R424 Ⓢ	ERD25TJ104	100K
R428,429 Ⓢ	ERD25TJ823	82K
R430 Ⓢ	ERD25FJ102	1K
R439 Ⓢ	ERD25FJ103	10K
R440,441 Ⓢ	ERD25TJ104	100K
R443 Ⓢ	ERD25FJ470	47
R444 Ⓢ	ERD25FJ181	180
R445 Ⓢ	ERD25FJ470	47
R446 Ⓢ	ERD25FJ181	180
R447 Ⓢ	ERD25FJ470	47
R448 Ⓢ	ERD25FJ181	180
R449 Ⓢ	ERD25TJ104	100K
R501,502 Ⓢ	ERD25TJ683	68K
R503,504 Ⓢ	ERD25TJ333	33K
R505 Ⓢ	ERD25TJ824	820K
R507,508 Ⓢ	ERD25TJ124	120K
R509,510 Ⓢ	ERD25FJ100	10
R511,512 Ⓢ	ERD25TJ224	220K
R513,514 Ⓢ	ERD25FJ103	10K
R515,516 Ⓢ	ERD25TJ154	150K
R519,520 Ⓢ	ERD25FJ102	1K
R521,522 Ⓢ	ERD25TJ153	15K
R523,524 Ⓢ	ERD25FJ470	47
R525,526 Ⓢ	ERD25FJ470	47
R527,528 Ⓢ	ERD25TJ473	47K
R529,530 Ⓢ	ERD25FJ331	330
R531,532 Ⓢ	ERD25FJ332	3.3K
R533,534 Ⓢ	ERD25FJ332	3.3K
R535,536 Ⓢ	ERD25FJ101	100
R537,538 Ⓢ	ERD25FJ100	10
R539 Ⓢ	ERD25FJ221	220
R541,542 Ⓢ	ERD25FJ222	2.2K
R551,552 Ⓢ	ERD25FJ392	3.9K
R553 Ⓢ	ERD25FJ561	560
R555,556 Ⓢ	ERD25FJ472	4.7K
R603,604 Ⓢ	ERD25TJ104	100K
R605,606 Ⓢ	ERD25FJ222	2.2K
R607,608 Ⓢ	ERD25FJ222	2.2K
R609,610 Ⓢ	ERD25FJ222	2.2K
R611,612 Ⓢ	ERD25FJ271	270
R613,614 Ⓢ	ERD25TJ563	56K
R615,616 Ⓢ	ERD25TJ824	820K

Ref. No.	Part No.	Value
R701,702	ER025CKF8201	8.2K
R703,704	ER025CKF5600	560
R705,706 Ⓢ	ERD25TJ824	820K
R709,710 Ⓢ	ERD25FJ392	3.9K
R711,712 Ⓢ	ERD25FJ122	1.2K
R713,714 Ⓢ	ERD25TJ223	22K
R715,716 Ⓢ	ERD25FJ332	3.3K
R717,718 Ⓢ	ERD25TJ333	33K
R719,720 Ⓢ	ERD25TJ823	82K
R721,722 Ⓢ	ERD25FJ103	10K
R723,724 Ⓢ	ERD25FJ562	5.6K
R725,726 Ⓢ	ERD25TJ824	820K
R727,728 Ⓢ	ERD25TJ183	18K
R729,730 Ⓢ	ERD25FJ392	3.9K
R731,732 Ⓢ	ERD25TJ824	820K
R733,734 Ⓢ	ERD25FJ103	10K
R735,736 Ⓢ	ERD25TJ223	22K
R737,738 Ⓢ	ERD25TJ824	820K
R739,740 Ⓢ	ERD25FJ272	2.7K
R741,742 Ⓢ	ERD25FJ562	5.6K
R743,744 Ⓢ	ERD25FJ332	3.3K
R745,746 Ⓢ	ERD25FJ472	4.7K
R751,752 Ⓢ	ERD25FJ221	220
R753 Ⓢ	ERD25FJ103	10K
R801,802 Ⓢ	ERD25FJ222	2.2K
R807,808 Ⓢ	ERD25TJ153	15K
R809,810 Ⓢ	ERD25TJ824	820K
R811,812 Ⓢ	ERD25FJ472	4.7K
R813,814 Ⓢ	ERD25FJ472	4.7K
R815,816 Ⓢ	ERD25TJ223	22K
R817 Ⓢ	ERD25FJ103	10K
R818,819 Ⓢ	ERD25FJ471	470
R820 Ⓢ	ERD25FJ103	10K
R821,822 Ⓢ	ERD25FJ101	100
R823,824 Ⓢ	ERD25FJ560	56
R825,826 Ⓢ	ERD25FJ103	10K
R901 Ⓢ	ERD25FJ682	6.8K
R904 Ⓢ	ERD25FJ333	33K
R905 Ⓢ	ERD25TJ564	560K
R906 ⚠	ERDS1FJ821	820
R907 Ⓢ	ERD25TJ563	56K

● CAPACITORS

Ref. No.	Part No.	Value
C1,2 ⚠	ECKDKC103PF2	0.01
C101,102 Ⓢ	ECCD1H680KC	68P
C103,104 Ⓢ	ECCD1H220KC	22P
C105,106	ECQM1H222JZ	0.0022
C109,110 Ⓢ	ECCD1H101K	100P
C111,112	ECQM1H472JZ	0.0047
C115,116	ECEAOJU332	3300
C119,120	ECQP1183GZ	0.018
C121,122	ECQM1H152JZ	0.0015
C123,124	ECQP1683JZ	0.068
C125,126 ⚠	ECEA1EN3R3S	3.3
C127,128	ECQM1H562JZ	0.0056
C129	ECEA1EU101	100
C130	ECEA1EU4R7	4.7
C132	ECEA1CU221	220
C133	ECEA1EU101	100
C135,136 Ⓢ	ECCD1H121KC	120P
C137 Ⓢ	ECKD1H102KB	0.001
C201	ECEA1CU330	33
C202,203 Ⓢ	ECKD1H333ZF	0.033
C204,205 Ⓢ	ECKD1H333ZF	0.033
C206,207 Ⓢ	ECKD1H333ZF	0.033
C208,209 Ⓢ	ECKD1H333ZF	0.033
C210	ECEA1HU2R2	2.2

Ref. No.	Part No.	Value
C213	ECEA1CU222	2200
C214 Ⓢ	ECKD1H333ZF	0.033
C215	ECEA1CU221	220
C217	ECKD1H333ZF	0.033
C218	ECEA1AU101	100
C302	ECEA1EU470	47
C305,306 Ⓢ	ECKD1H471KB	470P
C307,308 Ⓢ	ECKD1H471KB	470P
C309,310 Ⓢ	ECKD1H471KB	470P
C311,312 Ⓢ	ECKD1H471KB	470P
C313 Ⓢ	ECKD1H471KB	470P
C314,315 Ⓢ	ECKD1H471KB	470P
C316,317 Ⓢ	ECKD1H471KB	470P
C318 Ⓢ	ECKD1H471KB	470P
C319,320 Ⓢ	ECKD1H471KB	470P
C401,402	ECEA1AU471	470
C403,404	ECEA1AU471	470
C405	ECEA1AU471	470
C406,407	ECEA1CU470	47
C408,409	ECEA1AU102	1000
C410	ECEA1AU102	1000
C412 Ⓢ	ECKD1H333ZF	0.033
C413	ECEAOJU470	47
C414	ECEA1AU101	100

Ref. No.	Part No.	Value
C415	ECEA1CU101	100
C416,417 Ⓢ	ECCD1H330KC	33P
C418 Ⓢ	ECCD1H330KC	33P
C419,420 Ⓢ	ECKD1H102KB	0.001
C501,502 Ⓢ	ECQM1H683JZ	0.068
C503,504 Ⓢ	ECQM1H333JZ	0.033
C505,506 Ⓢ	ECKD1H681KB	608P
C507,508 Ⓢ	ECKD1H681KB	680P
C509,510 Ⓢ	ECKD1H102KB	0.001
C511,512 Ⓢ	ECKD1H333ZF	0.033
C513,514	ECEA1HU010	1
C515,516 Ⓢ	ECKD1H221KB	220P
C601,602 Ⓢ	ECCD1H181K	180P
C603,604 Ⓢ	ECCD1H270K	27P
C701,702 ⚠	ECEA1CN470S	47
C703,704	ECEA1HUR47	0.47
C705,706 Ⓢ	ECKD1H561KB	560P
C707,708	ECQM1H472JZ	0.0047
C709,710	ECQM1H222JZ	0.0022
C711,712 Ⓢ	ECQM1H183JZ	0.018
C713,714 Ⓢ	ECQM1H123JZ	0.012
C715,716 Ⓢ	ECQM1H683JZ	0.068
C717,718	ECEA1HU010	1
C719,720 Ⓢ	ECQM1H154JZ	0.15

Ref. No.	Part No.	Value
C721,722 Ⓢ	ECQM1H154JZ	0.15
C723,724 Ⓢ	ECQM1H153JZ	0.015
C725,726 Ⓢ	ECQM1H153JZ	0.015
C727,728 ⚠	ECEA1CN330S	33
C729,730	ECEA1CU470	47
C731,732 Ⓢ	ECCD1H470K	47P
C801,802 Ⓢ	ECCD1H151K	150P
C803,804 ⚠	ECEA1CN100S	10
C805,806	ECQM1H222JZ	0.0022
C809 Ⓢ	ECKD1H333ZF	0.033
C810	ECEAOJU470	47
C811	ECEA1EU4R7	4.7
C813,814 Ⓢ	ECKD1H471KB	470P
C815 Ⓢ	ECKD1H332MD	0.0033
C816 Ⓢ	ECKD1H103ZF	0.01
C817,818 Ⓢ	ECCD1H390KC	39P
C901,902	ECEA1VU102	1000
C903,904	ECEA1EU100	10
C906	ECEA1EU470	47
C907	ECEA1CU222	2200
C908	ECEA1AU101	100
C909	ECEA1HU3R3	3.3
C910	ECEA1CU220	22
C911	ECEA1HUR33	0.33

■ REPLACEMENT PARTS LIST

Notes: 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts order.
2. Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. The "Ⓢ" mark is service standard parts and may differ from production parts.
4. The parenthesized numbers in the column of description stand for the quantity per set.

Ref. No.	Part No.	Part Name & Description
INTEGRATED CIRCUITS		
IC101,501,601,701,801	SVINJM4560DX	Equalizer, Drive Buffer, Amp
IC201,202,204,205	SVIUPD4002BC	Input selector control
IC203	SVIUPD4072BC	Input selector Control
IC301～305	MN6631A	Input selector (Voice signal)
IC401,402	SVIUPD4066BC	Input selector (Video signal)
IC403	SVITD62501P	Inverter
IC702,802	AN6552F	Buffer, DCservo
IC901	AN78M18	Regulator
IC902	AN79M18	Regulator
IC903	AN78M05	Regulator
TRANSISTORS		
Q101～108	2SK369－GR	Differential amp
Q201～208,214,215,217,501,502,507～510,901～904	2SC1685－QNC	Inverter, Input selector,Relay drive
Q209～213,216,408,503,504,751	2SA1015Y	Inverter, Input selector, switching
Q401～406	2SA733－P1	Buffer amp
Q409～411	2SC3112	Transistor
Q505,506,601,602	2SK389－GR	Differential amp
DIODES		
D101,102,202～209,219,221,261～268 Ⓢ	MA162A	Switching
D269	MA1051M	5.1V Zener

Ref. No.	Part No.	Part Name & Description
DIODES		
407,409～415	MA162A	Switching
501～504,601,602,911,912,915		
D201	MA1100－M	10V, Zener
D211～218	SVDMC911	Input selector
D220	SVDMZ303BM	3V, Zener
D251～260,351	SVDPR5533K	Input selector IND
D401	MA1082M	8.2V, Zener
D505,506	MA27W－A	Switching
D402～404,408 Ⓢ	MA162A	Input selector
D405,406	MA1150M	15V Zener
D551	SVDPR5735S	Muting IND
D751～754	SVDPR5533K	Rec output
D755	SVDAY5533K－M	DC IND
D901～904,906～910 ⚠	SVDSR1K2	Rectifier
D913	MA1082M	8.2V Zener
D914	MA1047A	4.7V Zener
D916	MA1030M	3V, Zener
COILS		
L101～104	SLQW471－1P3	Choke
L801,802	SLQ×101－2D	Choke
L902,903	SLQ×400－D	Choke
TRANSFORMERS		
T1 ⚠	SLT5L185	Power Source
VARIABLE RESISTORS		
VR501,502	EVNK6AA00B52	DC offset adj, 500Ω(B)
VR503	EWGHCA054703	Balance
VR552	EWI6SA049101	Volume

Ref. No.	Part No.	Part Name & Description
VARIABLE RESISTORS		
VR701,702	EWGHC0054C15	Treble, super treble 100kΩ(C)
VR703	EWGHCY054530	Bass
VR704	EWKK5A531B53	Supper Bass, 5kΩ(B)
VR801,802	EVNK6AA00B23	DC offset adj, 2kΩ(B)
RELAY		
RLY901	SSY9	output
COMPONENT COMBINATIONS		
Z201,202	EXBP84104K	100kΩ×4
Z203,204	EXFP6103ZW	0.01μF×6
Z401,402	EXBP87104K	100kΩ×7
Z901,902	SXRFS203ZSM	0.01μF×2
SWITCHES		
S1 ⚠	ESB99399S	Power switch
S101,301	SSH2071	Phono, terminal selector
S251～258	SSG13	Input selector
S302～304	SSH469	Tape monitor
S305	RSS42A	Computer control
S501,502	SSH2073	Rec mode, Subsonic
S551	SSH1139	Muting
S701,702	SSH1137	Operation, supper Bass
S751～753	SSH471	Rec output
S2 ⚠	ESE3787	Voltage Selector
FUSES		
F1,2	XBA2C03TRO	250V, T315mA
F3	XBA2C04TRO	250V, T400mA

Ref. No.	Part No.	Part Name & Description
CABINET AND CHAS		
1	SGU187	
2	SGWUA6MK	
3	SNE2083	
4	SHG6131	
5	SHR9575	
6	SUB51	
7	SUB53	
8	SUB57	
9	SUE23－	
10	XUC3FT	
11	SUB55	
12	SUS223	
13	SBC639	
14	SHG6129	
15	SUE25－	
16	SUB65	
17	SUB59	
18	SUB63	
19	SBCUA6MK	
20	SGL165	
21	SGXUA6MK	
22	SDU241	
23	RHR969Z	
24	SBN1169	
25	SHP9377	
26	SBC621	
27	SBC627	
28	SBN1167	
29	SBC399T	
30	SMCUA6MK	
31	RJR2B	
32	SKU8790	
33	SKL247－	
34	SUB99	
36	SHR127	
37 ⚠	SJA138－	
38	SMC1135	
39	SGP6050	
40	SJF3057－	
41	SJF3057－	
42	SJF3057－	
43	SJF3059－	
44	SJF3225	
45	SJF3061－	
46	SJF3061－	
47	SKC350B2	
48	SNE4017	
49	SNTA421	
50	SNEA204	
51	RJT204A	
52	SHP9319	
53	SJF3061N	
54	SHR301	
55	SJF3061－	
56	SJT3511	
56	SJT3611	
57	SJS5331	
57	SJS5629	
58	SJT783	

ue	Ref. No.		Part No.	Value
200	C415		ECEA1CU101	100
033	C416,417	Ⓢ	ECCD1H330KC	33P
220	C418	Ⓢ	ECCD1H330KC	33P
033	C419,420	Ⓢ	ECKD1H102KB	0.001
100	C501,502	Ⓢ	ECQM1H683JZ	0.068
47	C503,504	Ⓢ	ECQM1H333JZ	0.033
0P	C505,506	Ⓢ	ECKD1H681KB	608P
0P	C507,508	Ⓢ	ECKD1H681KB	680P
0P	C509,510	Ⓢ	ECKD1H102KB	0.001
0P	C511,512	Ⓢ	ECKD1H333ZF	0.033
0P	C513,514		ECEA1HU010	1
0P	C515,516	Ⓢ	ECKD1H221KB	220P
0P	C601,602	Ⓢ	ECCD1H181K	180P
0P	C603,604	Ⓢ	ECCD1H270K	27P
0P	C701,702	⚠	ECEA1CN470S	47
470	C703,704		ECEA1HUR47	0.47
470	C705,706	Ⓢ	ECKD1H561KB	560P
470	C707,708		ECQM1H472JZ	0.0047
47	C709,710		ECQM1H222JZ	0.0022
000	C711,712	Ⓢ	ECQM1H183JZ	0.018
000	C713,714	Ⓢ	ECQM1H123JZ	0.012
033	C715,716	Ⓢ	ECQM1H683JZ	0.068
47	C717,718		ECEA1HU010	1
100	C719,720	Ⓢ	ECQM1H154JZ	0.15

Ref. No.		Part No.	Value
C721,722	Ⓢ	ECQM1H154JZ	0.15
C723,724	Ⓢ	ECQM1H153JZ	0.015
C725,726	Ⓢ	ECQM1H153JZ	0.015
C727,728	⚠	ECEA1CN330S	33
C729,730		ECEA1CU470	47
C731,732	Ⓢ	ECCD1H470K	47P
C801,802	Ⓢ	ECCD1H151K	150P
C803,804	⚠	ECEA1CN100S	10
C805,806		ECQM1H222JZ	0.0022
C809	Ⓢ	ECKD1H333ZF	0.033
C810		ECEAOJU470	47
C811		ECEA1EU4R7	4.7
C813,814	Ⓢ	ECKD1H471KB	470P
C815	Ⓢ	ECKD1H332MD	0.0033
C816	Ⓢ	ECKD1H103ZF	0.01
C817,818	Ⓢ	ECCD1H390KC	39P
C901,902		ECEA1VU102	1000
C903,904		ECEA1EU100	10
C906		ECEA1EU470	47
C907		ECEA1CU222	2200
C908		ECEA1AU101	100
C909		ECEA1HU3R3	3.3
C910		ECEA1CU220	22
C911		ECEA1HUR33	0.33

arts. Please use this part number for parts order.
by ⚠ mark have special characteristics important for safety.
y manufacturer's specified parts.
differ from production parts.
ription stand for the quantity per set.

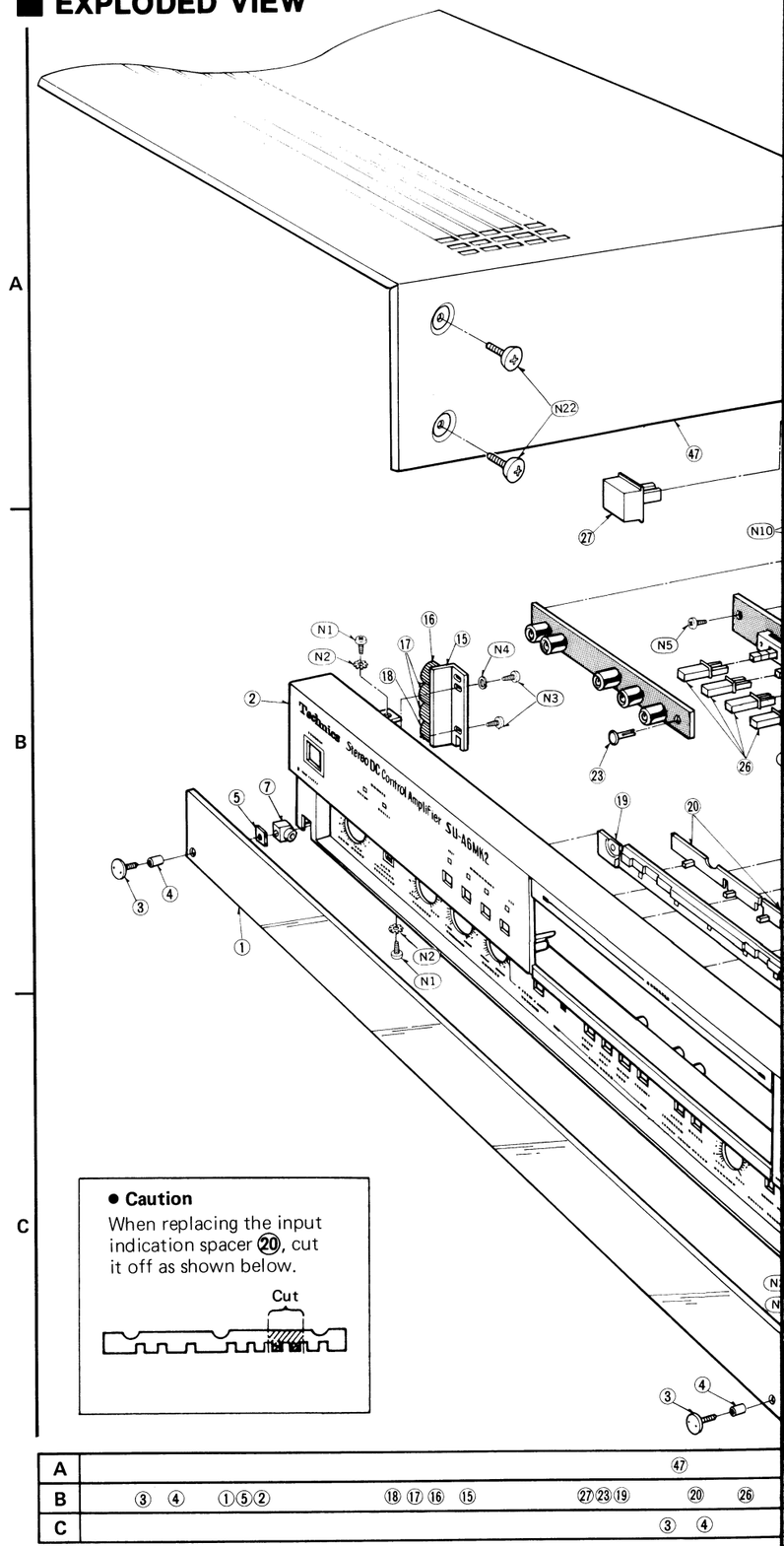
Part No.	Part Name & Description
62A	Switching
100−M	10V, Zener
MC911	Input selector
MZ303BM	3V, Zener
PR5533K	Input selector IND
082M	8.2V, Zener
7W−A	Switching
62A	Input selector
150M	15V Zener
PR5735S	Muting IND
PR5533K	Rec output
AY5533K−M	DC IND
SR1K2	Rectifier
082M	8.2V Zener
047A	4.7V Zener
030M	3V, Zener
W471−1P3	Choke
×101−2D	Choke
×400−D	Choke
5L185	Power Source
TORS	
K6AA00B52	DC offset adj, 500 Ω(B)
GHCA054703	Balance
6SA049101	Volume

Ref. No.	Part No.	Part Name & Description
VARIABLE RESISTORS		
VR701,702	EWGHC0054C15	Treble, super treble 100kΩ(C)
VR703	EWGHCY054530	Bass
VR704	EWKK5A531B53	Supper Bass, 5kΩ (B)
VR801,802	EVNK6AA00B23	DC offset adj, 2kΩ (B)
RELAY		
RLY901	SSY9	output
COMPONENT COMBINATIONS		
Z201,202	EXBP84104K	100kΩ×4
Z203,204	EXFP6103ZW	0.01μF×6
Z401,402	EXBP87104K	100kΩ×7
Z901,902	SXRFS203ZSM	0.01μF×2
SWITCHES		
S1 ⚠	ESB99399S	Power switch
S101,301	SSH2071	Phono, terminal selector
S251∼258	SSG13	Input selector
S302∼304	SSH469	Tape monitor
S305	RSS42A	Computer control
S501,502	SSH2073	Rec mode, Subsonic
S551	SSH1139	Muting
S701,702	SSH1137	Operation, supper Bass
S751∼753	SSH471	Rec output
S2 ⚠	ESE3787	Voltage Selector
FUSES		
F1,2	XBA2C03TRO	250V, T315mA
F3	XBA2C04TRO	250V, T400mA

Ref. No.	Part No.	Part Name & Description
CABINET AND CHASSIS PARTS		
1	SGU187	Transparent plate (1)
2	SGWUA6MK2−KN	Front panel Ass'y (1)
3	SNE2083	Rock pin (2)
4	SHG6131	Spacer (1)
5	SHR9575	Spacer (2)
6	SUB51	Hinge, Operation Lever(R) (1)
7	SUB53	Hinge, Operation Lever(L) (1)
8	SUB57	Operation(R) (1)
9	SUE23−1	Holder, Operation Lever (1)
10	XUC3FT	E Ring (1)
11	SUB55	Hinge, Operation Lever (1)
12	SUS223	Spring (1)
13	SBC639	Button (1)
14	SHG6129	Spacer (1)
15	SUE25−1	Holder, Gear (1)
16	SUB65	Gear (1)
17	SUB59	Gear (2)
18	SUB63	Gear (1)
19	SBCUA6MK2−KN	Input selector, Plate (1)
20	SGL165	Input selector, Spacer (1)
21	SGXUA6MK2−KN	Input selector, Button (1)
22	SDU241	Spacer, Muting (1)
23	RHR969ZA	Lock pin (2)
24	SBN1169	Knob, Volume (1)
25	SHP9377	Spacer, Volume (1)
26	SBC621	Button, Rec selector (4)
27	SBC627	Button, Power (1)
28	SBN1167	Knob (5)
29	SBC399T	Button (5)
30	SMCUA6MK2−KN	Bracket, Power Transformer (1)
31	RJR2B	Holder (1)
32	SKU8790−3	Bottom Board (1)
33	SKL247−2	Foot (4)
34	SUB99	Connection Rod (5)
36	SHR127	Bushing, AC Outlet (1)
37 ⚠	SJA138−3	AC Cord (1)
38	SMC1135	Shield cover (1)
39	SGP6050−1A	Rear Panel (1)
40	SJF3057−3N	Terminal, Computer Control (1)
41	SJF3057−4A	Terminal, Output (1)
42	SJF3057−3N	Terminal, Tape1,2 (1)
43	SJF3059−7N	Terminal, Tape3, Tuner (1)
44	SJF3225−3SA	Terminal, Phono (1)
45	SJF3061−4N	Terminal, TV, VIDEO, Tape3 (1)
46	SJF3061−3N	Terminal, Tape2 (1)
47	SKC350B2	Cabinet (1)
48	SNE4017	Terminal, Earth (1)
49	SNTA421	Terminal, Earth (1)
50	SNEA204−2S	Terminal, Earth (1)
51	RJT204A	Terminal, Earth (1)
52	SHP9319	Space (1)
53	SJF3061N	Terminal, OUTPUT (1)
54	SHR301	Clamp (8)
55	SJF3061−2N	Terminal, VIDEO Signal (1)
56	SJT3511	Post(5pin) (2)
56	SJT3611	Post(6pin) (1)
57	SJS5331	Socket(3pin) (1)
57	SJS5629	Socket(6pin) (1)
58	SJT783	Terminal (32)

Ref. No.	Part No.	Part Name & Description
SCREWS, WASHERS AND NUT		
N1 Ⓢ	XTB3+8BFZ	⊕3×8, Front Panel (1)
N2 Ⓢ	XWC3B	Washer, Front Panel (2)
N3 Ⓢ	XSN3+6S	⊕3×6 (1)
N4 Ⓢ	XWA3B	φ3 (4)
N5 Ⓢ	XTB3+8B	⊕3×8 (8)
N6 Ⓢ	XTB3+10B	⊕3×10 (5)
N7 Ⓢ	XTB3+8B	⊕3×8 (2)
N8 Ⓢ	XWC3B	Washer (1)
N9 Ⓢ	XTB3+8B	⊕3×8 (2)
N10 Ⓢ	XSN3+6S	⊕3×6 (2)
N11 Ⓢ	XWA3B	Washer (2)
N12 Ⓢ	XTB3+8B	⊕3×8, Shield (1)
N13	SNE4021	Washer, Volume (1)
N14 Ⓢ	XSN3+6S	⊕3×6 (5)
N15 Ⓢ	XWA3B	Washer (2)
N16 Ⓢ	XTB3+8B	⊕3×8 (2)
N17 Ⓢ	XTB3+8BFZ	⊕3×8 (1)
N18 Ⓢ	XTB3+12BFZ	⊕3×12 (4)
N19 Ⓢ	XTB3+8B	⊕3×8 (10)
N20 Ⓢ	XTV3+8B	⊕3×8 (4)
N21 Ⓢ	XWG3	Washer (4)
N22	XSSS5+12FIS	⊕5×12Cabinet (8)
N23 Ⓢ	XTB3+8BFZ	⊕3×8 (10)
N24 Ⓢ	XWC4B	Washer (2)
N25 Ⓢ	XNG4BS	Nut (1)
N26 Ⓢ	XTB3+8BFN	⊕3×8 (2)
N27 Ⓢ	XWT4	Washer (2)
N28 Ⓢ	XTB3+14BFZ	⊕3×14 (2)
PACKING PARTS		
P1	SPP689	Ployethylene Bag (1)
P2	SPH207	Sheet (1)
P3	SPS2955−6	Pad, left Side (1)
P4	SPS2957−5	Pad, Right side (1)
P5	SPG4791	Carton Box (1)
ACCESSORIES		
A1	SJP2239	Pin cord (1)
A2	TSX299	Pin cord (1)
A3	SQF12031	Instruction Book (1)
A4	SJPA11−1	Short Pin (10)

■ EXPLODED VIEW



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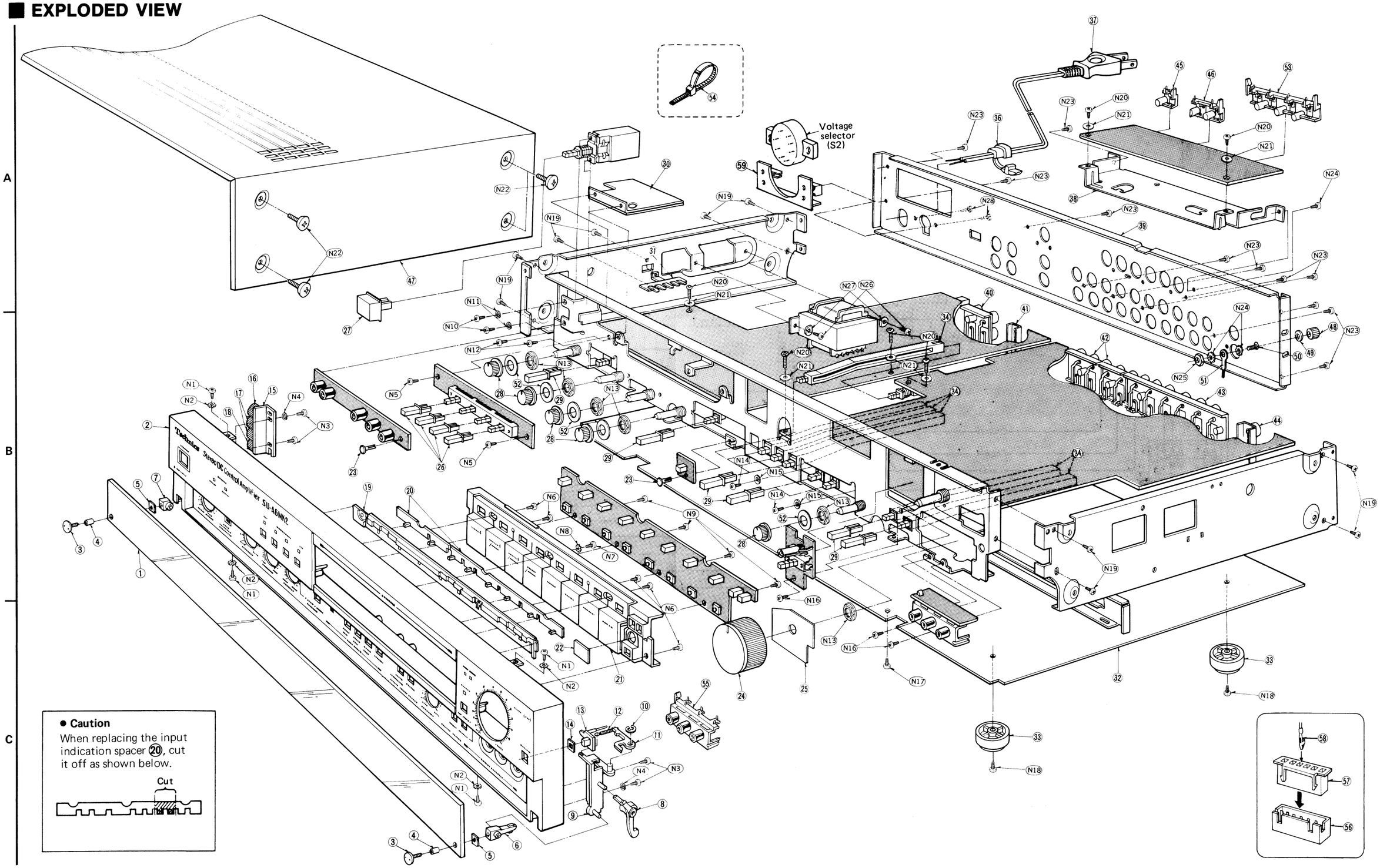
■ EXPLODED VIEW



● **Caution**

When replacing the input indication spacer ⑳, cut it off as shown below.

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